INDIVIDUAL BIOLOGICAL ASSESSMENT REPORT

Site Name/Facility:	Nestor Creek Channel
Master Program Map No.:	134
Date:	January 10, 2018
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 two rounds of past emergency maintenance and proposed future maintenance activities within the Nestor Creek Channel (Map 134). Emergency maintenance within Map 134 occurred in 2010 and 2016 and maintenance is proposed in 2018. 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), 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 any 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 area.

Upon completion of the original research, HELIX conducted an initial biological survey and site assessment of the Map 134 segment (Reach 1) of Nestor Creek Channel on September 15, 2016. 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) (Attachment 2). 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 facility 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.

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 Reach 1, including staging and loading areas, where emergency maintenance has occurred and where maintenance is currently proposed by the City of San Diego. The IHHA splits Reach 1 by substrate into Reach 1a (earthen-bottom) and Reach 1b (concrete-bottom).

Nestor Creek channel Map 134 is located in the Egger Highlands neighborhood of the Otay Mesa-Nestor Community Plan Area in the City of San Diego parallel to Interstate 5, north of Palm Avenue (Figure 1). 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). Reach 1 of Nestor Creek (Map 134) runs north from Palm Avenue between the parking lots for a Super 8 Motel and an auto repair shop before turning westward along the northern edge of businesses fronting Palm Avenue. It is bordered by development along all of its length. The San Diego Bay National Wildlife Refuge is located approximately 5,900 feet (1,820 meters) northwest of the maintenance area.

The channel in Map 134 (Reach 1) is zoned RM-1-1 (Residential-Multiple Unit) and CC-4-2 (Commercial-Community). The proposed loading and staging areas are also designated as AR-1-2 (Agricultural-Residential) and IL-3-1 (Industrial-Light). According to the Federal Emergency Management Agency (FEMA), portions of the channel are located within the 100-year floodway. 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). The site is located within the Coastal Zone. The City will be required to review the proposed maintenance to determine if it meets the requirements for a Coastal Development Permit (CDP). The City has the authority to issue a CDP under its Local Coastal Program (LCP); however, the site is located within an area of the Coastal Zone that allows for the City's approval of a CDP to be appealed to the California Coastal Commission.

This reach is approximately 630 feet long. Approximately 565 feet of the channel is a concrete, rectangular channel with patches of cattails (*Typha* sp.) and bulrush (*Schoenoplectus* sp.). The concrete portion of the reach is 28 feet wide and 8-9 feet deep. The maintenance area also includes approximately 65 feet of the earthen channel west of the concrete portion which is lined with rip rap. The earthen portion of the reach is 15-22 feet wide at the bottom, 28 feet wide at the top, and 8-9 feet deep. This area borders development to the south and undeveloped lands to the north. Reach 1 was densely vegetated with giant reed (*Arundo donax*), Mexican fan palm (*Washingtonia robusta*), Canary Island date palm (*Phoenix canariensis*), and castor-bean prior to emergency maintenance in 2016. Reach 1 receives storm flows from Reach 2 of Nestor Creek via the culvert under Palm Avenue and from adjacent developed lands. The maintenance area is approximately 1,825 feet (525 meters or 0.3 mile) upstream of the San Diego Bay National Wildlife Refuge. Storm water flows through the Nestor Creek maintenance area eventually discharge into the Refuge and the Otay River.

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. Reach 1 is presumed to have perennial sources of water from urban runoff.

Vegetation:

For purposes of this IBA, only vegetation or land covers within the previously maintained and 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.

Vegetation mapping associated with the 2016 emergency maintenance was conducted by DUDEK (HELIX 2016). Vegetation mapping associated with the 2010 emergency maintenance and proposed 2018 maintenance was conducted by HELIX (HELIX 2010). Maintenance boundaries vary between the two rounds of emergency maintenance and the proposed 2018 maintenance, thus vegetation community totals differ for the three site assessments.

A total of eight vegetation communities or land cover types were identified during the biological surveys and site assessments conducted between 2010 and 2016: disturbed wetland (arundo-dominated), developed land (concrete channel with or without surface water, parking lot, roads), disturbed land, disturbed wetland, freshwater marsh (including disturbed phases), southern willow scrub (including disturbed phase), and streambed (Table 1; Figure 5). 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 September 15, 2016 survey is provided as Attachment 3.

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

Survey Date	CHANNEL TYPE	WETLANDS[2]				STM/NFC[2]	TOTAL
		SWS	FWM	DW	AR		
2010 Emergency	Earthen	0	0	0	ND[3]	0	**ND[3]**
	Concrete	0.04	0.02	0.06	ND[3]	0.63	**ND[3]**
	Total	**0.04**	**0.02**	**0.06**	**ND[3]**	**0.63**	**ND[3]**
2016 Emergency	Earthen	0	0.02	0	0.01	0	**0.03**
	Concrete	0	0.07	0	0	0.26	**0.33**
	Total	**0**	**0.09**	**0**	**0.01**	**0.26**	**0.36**
Current	Earthen	0	0	0	0.01	0.01	**0.02**
	Concrete	0	0.03	0.07	0	0.26	**0.36**
	Total	**0**	**0.03**	**0.07**	**0.01**	**0.27**	**0.38**

Survey Date	UPLANDS[2] TIER IV			TOTAL
	DL	NNV	DEV	
2010 Emergency	ND[3]	ND[3]	ND[3]	**ND[3]**
2016 Emergency	0.02	0	0.72	**0.74**
Current	0.19	0.01	0.72	**0.92**

[1] Habitats are rounded to the nearest 0.01 acre; thus, totals reflect rounding.
[2] Habitat acronyms: AR=Disturbed wetland (arundo-dominated), DEV=developed land (includes unvegetated concrete-lined streambed), DL=disturbed land, DW=disturbed wetland, FWM=freshwater marsh (including disturbed), SWS=southern willow scrub (includes disturbed), STM/NFC=streambed/natural flood channel (includes concrete-lined/developed land)
[3] ND=not determined. The acreages of disturbed wetland (arundo-dominated) and disturbed land were not calculated in 2010.

2010 Emergency

The following vegetation communities were observed in Map 134 during the surveys conducted for the 2010 emergency maintenance:

Freshwater Marsh (0.02 acre)
Cattails and California bulrush were the dominant species present. Also present in these areas were cocklebur (*Xanthium strumarium*). Freshwater marsh occurred within 0.02 acre of the concrete-lined channel bottom.

Southern Willow Scrub (0.04 acre)
Goodding's black willow, arroyo willow, and mule fat (*Baccharis salicifolia*) formed thickets within the concrete-lined channel. Approximately 0.04 acre of this vegetation community was present.

Disturbed Wetland (0.06 acre)
This vegetation community, totaling 0.06 acre, occurred in the concrete-lined channel. These areas were characterized by a mix of native and non-native plants.

Developed (also Streambed/Natural Flood Channel) (0.63 acre)
Unvegetated portions of the concrete-lined channel were mapped as developed. These areas were largely devoid of vegetation.

Disturbed Land (Undetermined acreage)
A total of 0.19 acre of the loading area, a disturbed field adjacent to Nestor Creek, and an undetermined portion of area was this vegetation community. This vegetation community consisted of sparse primarily non-native plants, including Russian thistle, castor-bean, and non-native grasses.

2016 Emergency

The following vegetation communities were observed in Map 134 during the surveys conducted for the 2016 emergency maintenance:

Freshwater Marsh (0.09 acre)
Cattails and California bulrush were the dominant species present in Reach 1. Also present in these areas were cocklebur (*Xanthium strumarium*). Several patches of freshwater marsh occur in the concrete-lined channel bottom and one patch of disturbed freshwater marsh occurred within the earthen bottom portion of channel on the western end of the maintenance area, totaling 0.09 acre.

Streambed/Natural Flood Channel (0.26 acre)
Most of the concrete-lined channel bottom contained open water over a layer of sediment. These areas were mostly unvegetated with surface water.

Developed (0.72 acre)
Includes staging area adjacent to channel (0.66 acre) and a portion of the concrete wall of the channel (0.06 acre).

Disturbed Land (0.02)
This vegetation community consisted of sparse primarily non-native plants, including Russian thistle, castor-bean, and non-native grasses.

Current

During the current survey, the following vegetation communities were observed in Map 134:

Freshwater Marsh (0.03 acre)
Cattails and California bulrush are the dominant species present in Reach 1. Also present in these areas are cocklebur. Three patches of freshwater marsh totaling 0.03 acre occur in the concrete-lined channel bottom.

Disturbed Wetland (0.07 acre)
Two patches of this vegetation community, totaling 0.07 acre, occur in the concrete-lined channel. These areas are characterized by a mix of native and non-native plants.

Disturbed Wetland (arundo-dominated) (0.01 acre)
A dense patch of giant reed is located near the western end. This patch occupies approximately 0.01 acre of the loading area.

Streambed/Natural Flood Channel (0.27 acre)
Includes 0.26 acre of concrete-lined channel and 0.01 acre of earthen bottom streambed that extends west of concrete-lined portion.

Non-native Vegetation (0.01 acre)
This vegetation community is comprised mostly of non-native plants, including Mexican fan palm, Canary Island date palm, and castor-bean.

Disturbed Land (0.19 acre loading area)
A total of 0.19 acre of the loading area, a disturbed field adjacent to Nestor Creek, is this vegetation community. This vegetation community consists of sparse primarily non-native plants, including Russian thistle, castor-bean, and non-native grasses.

Developed Land (0.72 acre)
Areas along Thermal Avenue, Cedar Street, and a paved parking area are included in the staging and loading areas.

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 14 wildlife species detected during the biological surveys and site assessments 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 September 15, 2016 (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) and Regional Water Quality Control Board (RWQCB) pursuant to Section 401 of the federal CWA; waters of the State subject to the exclusive regulatory jurisdiction of the RWQCB pursuant to the Porter-Cologne Water Quality Control Act; streambed and riparian habitat subject to the regulatory jurisdiction of the California Department of Fish and Wildlife (CDFW) pursuant to Sections 1600 et seq. of the California Fish and Game Code; and wetlands pursuant to the City's Environmentally Sensitive Lands (ESL) regulations.

USACE
The USACE wetland boundaries were preliminary determined based on vegetation and hydrology indicators established for wetland delineations as described within the Wetlands Delineation Manual (Environmental Laboratory 1987) and Arid West Regional Supplement (USACE 2008). Hydric soils were not verified through the excavation of soil pits, although soil mapping units were assessed for hydric soil status. Areas were determined to be non-wetland WUS if there was evidence of regular surface flow (e.g., ordinary high water mark [OHWM], bed and bank) but the vegetation criterion was not met. The limits of the non-wetland WUS were mapped according to the OHWM noted during the delineation.

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. The proposed maintenance can be covered under a USACE Nationwide Permit (NWP) as long as certain thresholds are not exceeded. Depending on the NWP, activities proposed under the NWP may or may not require notification to the USACE in the form of a Pre-Construction Notification (PCN).

- NWP 3 can be used for repair, rehabilitation, or replacement of a previously authorized currently serviceable structures. This NWP authorizes only minor deviations for maintenance. A PCN is required only if the maintenance activities would include removal of accumulated sediment and debris in the vicinity of existing structures, including intake and outfall structures and associated canals.

- NWP 31 can be used for maintenance of existing flood control facilities. The maintenance baseline must be approved by the district engineer. A PCN is required for all activities under this permit.

- NWP 43 can be used for stormwater management facilities, less than 0.50 acre and less than 300 linear feet of streambed. The linear feet restriction can be waived by the district engineer for intermittent and ephemeral streams. A PCN is required for all activities involving expansion or construction of stormwater management facilities.

RWQCB
Jurisdictional estimates for the RWQCB were based on the USACE boundaries. As the proposed project would require a Section 404 Permit in the form of a NWP, a Water Quality Certification by the RWQCB under Section 401 of the CWA is also required.

CDFW
The CDFW jurisdictional boundaries were determined based on the presence of riparian vegetation or regular surface flow within streambed and bank features. CDFW jurisdiction is taken to the top of bank or outermost limit of the riparian canopy, whichever is greater. A Notification of Lake or Streambed Alteration to CDFW would be required for maintenance resulting in the alteration or modification of a streambed, substantial diversion or obstruction of natural flows, or destruction of riparian habitat. CDFW may choose to take action on the Notification and issue a Streambed Alteration Agreement. If they do not take action on the Notification, they will issue an Operation of Law or No Streambed Alteration Required letter.

CITY

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.

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

Survey Date	CHANNEL TYPE	WETLAND WUS[3]					NON-WETLAND WUS[3]	TOTAL USACE
		SWS	FWM	DW	AR	Total Wetland		
2010	Earthen	--	--	--	-	**--**	--	**--**
	Concrete	0.04	0.02	0.06	-	**0.12**	0.63	**0.75**
	Total	**0.04**	**0.02**	**0.06**	**-**	**0.12**	**0.63**	**0.75**
2016	Earthen	--	0.02	--	-	**0.02**	0	**0.02**
	Concrete	--	0.07	--	-	**0.07**	0.26	**0.33**
	Total	**--**	**0.09**	**--**	**-**	**0.09**	**0.26**	**0.35**
Current	Earthen	--	--	--	-	**--**	0.01	**0.01**
	Concrete	--	0.03	0.07	-	**0.10**	0.26	**0.36**
	Total	**--**	**0.03**	**0.07**	**-**	**0.10**	**0.27**	**0.37**

[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: AR=disturbed wetland (arundo-dominated), DW=disturbed wetland, FWM=freshwater marsh (includes disturbed), STM=streambed (includes developed land), SWS=southern willow scrub (includes disturbed).

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

Survey Date	CHANNEL TYPE	WETLAND HABITAT[3]					NON-WETLAND[3]	TOTAL CDFW/CITY
		SWS	FWM	DW	AR	Total Wetland/ Riparian	Unvegetated/ NFC/STM	
2010	Earthen	--	--	--	--	**--**	--	**--**
	Concrete	0.04	0.02	0.06	--	**0.12**	0.63	**0.75**
	Total	**0.04**	**0.02**	**0.06**	**--**	**0.12**	**0.63**	**0.75**
2016	Earthen	--	0.02	--	0.01	**0.03**	--	**0.03**
	Concrete	--	0.07	--	--	**0.07**	0.26	**0.33**
	Total	**--**	**0.09**	**--**	**0.01**	**0.10**	**0.26**	**0.36**
Current	Earthen	--	--	--	0.01	**0.01**	0.01	**0.02**
	Concrete	--	0.03	0.07	--	**0.10**	0.26	**0.36**
	Total	**--**	**0.03**	**0.07**	**0.01**	**0.11**	**0.27**	**0.37**

[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: AR=disturbed wetland (arundo-dominated), DW=disturbed wetland, FWM=freshwater marsh (includes disturbed), NFC/STM=City natural flood channel/streambed, SWS=southern willow scrub (includes disturbed).

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. The maintenance methodology for Map 134 is summarized below.

Maintenance in Map 134 is expected to remove up to 800 cubic yards of material over a 7-day period in order to restore the original capacity of the channel to convey storm water. The maintenance area includes 557 linear feet of concrete bottom and 65 linear feet of earthen bottom channel. 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. Sandbags will be temporarily placed at the upstream end of maintenance area within the concrete-lined channel. The sandbags will be approximately 28 feet long, 1-foot wide, and have at least a 2-foot depth. The maintenance staff will adjust sandbag placement, length, and depth as necessary.

The front-end loader and track steer will access the channel from an existing earthen embankment from Cedar Street. The front-end loader and track steer will push material to the excavator operating along the north side of the channel. 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 project impacts on City wetlands associated with the 2010 emergency maintenance is 0.11 acre. The wetland acreage is composed of 0.03 acre of southern willow scrub (including disturbed), 0.02 acre of freshwater marsh, and 0.06 acre of disturbed wetland. Work occurred within 0.24 acre of unvegetated concrete-lined channel.

The project impacts on City wetlands associated with the 2016 emergency maintenance is 0.03 acre composed of 0.02 acre of freshwater marsh and 0.01 acre of disturbed wetland (arundo-dominated) within the earthen channel section. No work occurred within the concrete-lined channel section.

The project impacts on City wetlands associated with the proposed 2018 maintenance is 0.11 acre. The wetland acreage is composed of 0.03 acre of freshwater marsh (including disturbed) and 0.07 acre of disturbed wetland and 0.01 of disturbed wetland (arundo-dominated). The project would also impact 0.01 acre of natural flood channel/streambed. Work would occur within 0.26 acre of unvegetated concrete-lined channel.

Table 4
MAINTENANCE IMPACTS[1]

TOTAL IMPACTS				
Survey Date	**City Wetland**	**City Natural Flood Channel**	**Upland**	**Total Vegetation/Land Cover Impacts**
2010 Emergency	0.11	--	--	0.11
2016 Emergency	0.03	--	0.74	0.77
Current	0.11	0.01	0.92	1.04

JURISDICTIONAL AREAS[2]				
Survey Date	**(USACE WUS/ RWQCB)**		**CDFW[2]**	
	Wetland	**Non-wetland Waters**	**Wetlands**	**Streambed/ Unvegetated Waters[3]**
2010 Emergency	0.11	0.24[4]	0.11	0.24[4]
2016 Emergency	0.02	-	0.02	--
Current	0.10	0.27[5]	0.11	0.27[5]

[1]Acreages are rounded to the nearest 0.01 acre
[2]Includes City vegetation/land cover impacts that are also considered jurisdictional areas
[3]Earthen bottom channel areas only
[4]Concrete-lined channel
[5]Includes 0.01 acre of earthen bottom channel and 0.26 acre of concrete-lined channel

Upland

Overall, combined maintenance impacts from previous emergency maintenance in 2016 and proposed maintenance in 2018 total 1.66 acres of upland communities. Impacts to upland communities as a result of emergency maintenance in 2016 consisted of 0.02 acre of disturbed land and 0.72 acre of developed land. Impacts resulting from proposed maintenance in 2018 consists of 0.19 acre of disturbed land, 0.72 acre of developed land and 0.01 acre of non-native vegetation.

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. One low-sensitivity plant species, singlewhorl burrobush (*Ambrosia monogyra*), was mapped as occurring in a broad area overlapping Reach 1 of Nestor Creek, as documented in CNDDB, USFWS, and SanBIOS databases (Figure 6). This species has a California Rare Plant Rank of 2B.2, which indicates species rare or endangered in California, but more

common elsewhere, and moderately threatened in California. An additional seven species were observed within 0.5 mile of the project work areas: estuary seablite (*Suaeda esteroa*; Rank 1B.2), beach goldenaster (*Heterotheca sessiliflora* ssp. *sessiliflora*; Rank 1B.1), coast woolly-heads (*Nemacaulis denudata* var. *denudata*; Rank 1B.2), decumbent goldenbush (*Isocoma menziesii* var. *decumbens*; Rank 1B.2), Blochman's dudleya (*Dudleya blochmaniae* ssp. *blochmaniae*; Rank 1B.1), San Diego barrel cactus (*Ferocactus viridescens*; Rank 2B.1), and golden-spined cereus (*Bergerocactus emoryi*; Rank 2B.2). Rank 1B.1 indicates species that are rare or endangered in California and elsewhere, and seriously threatened in California. Rank 1B.2 indicates species that are rare or endangered in California and elsewhere, and moderately threatened in California. Rank 2B.1 indicates species that are rare or endangered in California, but more common elsewhere, and seriously 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. Six special-status animal species have been reported within 0.5 mile of the project work areas and are documented in CNDDB, USFWS, and SanBIOS databases: pallid bat (*Antrozous pallidus*; state Species of Special Concern [SSC]), Mexican long-tongued bat (*Choeronycteris mexicana*; state SSC), LBV (federally and state listed endangered), Quino checkerspot butterfly (*Euphydryas editha quino*; federally listed endangered), two-striped gartersnake (*Thamnophis hammondii*; state SSC), and coast horned lizard (*Phrynosoma blainvillii*; state SSC; Figure 6). None 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 Least Bell's vireo (*Vireo bellii pusillus*; LBV) to occur, least Bell's vireo has been reported northeast of Map 134 within the Otay Valley Regional Park, just outside of the half mile radius for the project. 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.

No suitable habitat occurs within Reach 1 of Map 134, and thus Least Bell's vireo surveys were not conducted.

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 6 depicts CNDDB, USFWS, and SanBIOS database records within one-half mile of the project sites. Six species have been documented within one-half mile of Reach 1. 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 and Mexican long-tongued bat, both CDFW species of special concern, are not likely to roost in the work area, but

may use it to forage. Thus, the potential for impacts to pallid bat and Mexican long-tongued bat are low. Least Bell's vireo, a federally and state listed endangered species, inhabits mature riparian scrub habitat, none of which exists within Reach 1 of Map 134. The maintenance area occurs outside the current range for Quino checkerspot butterfly, a federally listed endangered species, and no appropriate habitat occurs onsite. Two-striped garter snakes, a state species of special concern, are primarily aquatic and although they are associated with water sources, they are not likely to be found in the maintenance area due to the surrounding urban development.

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 or 500 feet (PEIR MMRP Condition 4.1.3) of the proposed maintenance (Figure 6). Thus, a detailed INA is not 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. One low-sensitivity plant species, singlewhorl burrobush, was historically mapped as occurring in a broad area overlapping Reach 1 of Nestor Creek (Figure 6). This species occurs as a shrub to a small tree and would likely have been observed if present. Most of the seven additional species mapped within 0.5 mile of the project work areas are perennial species that would have been observed if present: estuary seablite, beach goldenaster, decumbent goldenbush, San Diego barrel cactus, and golden-spined cereus. Blochman's dudleya, though perennial, is small. This species occurs in valley grassland and coastal sage scrub in coastal areas, none of which occurs in the maintenance area. 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 6.

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 avian bird breeding is expected to occur within 750 feet (INA requirement) or 500 feet (PEIR MMPR Condition 4.1.3 requirement) 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 surveys conducted between 2010-2016, the following observations are different from the original survey:

- Reach 1b was mapped mostly as developed, with 2 areas of freshwater marsh in 2007-2008, while Reach 1a was mapped as freshwater marsh. Emergency channel maintenance occurred for Reach 1b (concrete-lined) in 2010 and for Reach 1a (earthen-lined) in 2016 (Figure 4). Prior to emergency maintenance in 2010, Reaches 1a and 1b had been composed of southern willow scrub, freshwater marsh, disturbed wetland, disturbed wetland (arundo-dominated), open water, and disturbed land. In 2016 following the maintenance, most of Reach 1b was mapped as open water, with patches of disturbed wetland and freshwater marsh. Reach 1a was mapped as streambed and non-native vegetation.

- Most of the loading and staging areas (i.e., Thermal Avenue, Cedar Street, and the paved parking lot) remain developed. The western portion of the loading area (an undeveloped lot), was originally mapped as non-native grassland and is currently mapped as disturbed land.

Since 2007, vegetation communities developed and expanded in the maintenance areas, but the channel was maintained twice. Following the 2010 emergency maintenance, some areas of freshwater marsh regrew, but the channel was mostly unvegetated. 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.

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 2,250 feet (500 meters) north of the maintenance area in Reach 1. 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 _____

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 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, 4.3.21, 4.3.25

Land Use, 4.1.6, 4.1.7

The above measures apply to this project. 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.

- 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.

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 required for impacts to wetlands, sensitive uplands, and jurisdictional areas associated with the proposed maintenance. City mitigation ratios must be consistent with those identified in the SDP related to the Final PEIR for the MMP. Mitigation for jurisdictional impacts is proposed below, but final mitigation requirements will be determined by the agencies during permitting.

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:

Concrete-lined Channels

No compensatory wetland mitigation was required in 2010 for activities conducted under NWP 43 or the associated 401 certification. For proposed impacts to jurisdictional waters, 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 activities in concrete-lined facilities when the proposed discharge of dredged or fill material contains no toxic pollutants and does not convert an area of the waters of the United States into a use to which it was not previously subject. Proposed 2018 maintenance in the concrete-portion of Nestor Creek (Reach 1b) qualifies as an exempt activity.

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 habitats within the concrete portions is being proposed at this time. However, at the RWQCB's discretion, habitat mitigation can be accommodated with credit for higher quality wetlands within the Hollister Quarry mitigation site. The proposed mitigation provided for the earthen-channel impacts noted below will 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.

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 emergency maintenance in 2016, as well as proposed maintenance in 2018, will amount to 0.05 acres. Mitigation for 2016 is proposed at a 2:1 ratio for 0.02 acre impacts to disturbed freshwater marsh and a 0:1 ratio for disturbed wetland (arundo-dominated. For 2018 maintenance, mitigation is proposed at a 1:1 ratio for non-wetland impacts, and a 0:1 ratio for disturbed wetland (arundo-dominated), resulting in a total mitigation requirement of 0.05 acres (Table 5).

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

VEGETATION COMMUNITY	IMPACTS TO NATURAL-BOTTOM CHANNEL (ac)	MITIGATION RATIO	PROPOSED MITIGATION (ac)
2010 Emergency			
TOTAL	**0**	**--**	**0**
2016 Emergency			
Freshwater Marsh	0.02	2:1	0.04
Disturbed wetland (arundo-dominated)	0.01	0:1	0
Wetlands Subtotal	**0.03**	**--**	**0.04**
TOTAL	**0.03**	**--**	**0.04**
2018 Proposed Maintenance			
Disturbed wetland (arundo-dominated)	0.01	0:1	0
Wetlands Subtotal	**0.01**	--	**0**
Streambed/Natural Flood Channel	0.01	1:1	0.01
Non-wetland Waters Subtotal	**0.01**	**--**	**0.01**
TOTAL	**0.02**	**--**	**0.01**
GRAND TOTAL	**0.05**	**--**	**0.05**

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

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. No mitigation was required for channel maintenance impacts in 2010 or 2016. Mitigation for impacts to CDFW jurisdictional areas is proposed at a 1:1 ratio for streambed, and a 0:1 ratio for disturbed wetland (arundo-dominated), resulting in a total mitigation requirement of 0.01 acre (Table 6).

Table 6
CDFW MITIGATION SUMMARY FOR WETLAND IMPACTS[1]

Vegetation Community	Impact to Earthen Channel (ac)	Ratio	Mitigation (ac)
2010 Emergency Maintenance			
Subtotal	No Mitigation Required		
2016 Emergency Maintenance			
Subtotal	Emergency notification submitted and no SAA issued; therefore, no mitigation required.		
2018 Proposed Maintenance			
Disturbed wetland (arundo-dominated)	0.01	0:1	--
Streambed	0.01	1:1	0.01
Subtotal	**0.02**	**--**	**0.01**
TOTAL	**0.02**	**--**	**0.01**

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

City and Coastal 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, impacts to City and Coastal wetlands from the 2010 and 2016 emergencies and the proposed 2018 maintenance will require 1.43 acres of mitigation. 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 (2011c). 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.

Table 7
CITY/ CALIFORNIA COASTAL COMMISSION MITIGATION SUMMARY FOR WETLAND IMPACTS*

Vegetation Community	Impact to Earthen Channel (ac) [1]	Impact to Concrete-lined Channel (ac) [1]	Total Impact (ac)	Ratio	Mitigation (ac)
2010 Emergency Maintenance					
Freshwater Marsh	--	0.02	0.02	4:1	0.08
Southern Willow Scrub	--	0.03	0.03	3:1	0.09
Disturbed Wetland	--	0.06	0.06	4:1	0.24
Subtotal	**--**	**0.11**	**0.11**	**--**	**0.41**
2016 Emergency Maintenance					
Freshwater Marsh	0.02	--	0.02	4:1	0.08
Disturbed Wetland (arundo-dominated)	0.01	--	0.01	0:1	--
Subtotal	**0.03**	**--**	**0.03**	**--**	**0.08**
2018 Proposed Maintenance					
Freshwater Marsh	--	0.03	0.03	4:1	0.12
Disturbed Wetland	--	0.07	0.07	4:1	0.28
Disturbed Wetland (arundo-dominated)	0.01	--	0.01	0:1	--
Streambed (Natural Flood Channel)	0.01	--	0.01	2:1	0.02
Subtotal	**0.02**	**0.10**	**0.12**	**--**	**0.42**
TOTAL	**0.05**	**0.21**	**0.26**	**--**	**0.91**

*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 upland communities were restricted to disturbed land and developed land and thus no impacts to sensitive uplands occurred as a result of emergency maintenance in 2010 or 2016 and impacts to sensitive uplands are not proposed for 2018 maintenance. Therefore, no mitigation will be required for upland communities.

Mitigation Description/Location:

Mitigation for wetland impacts from maintenance in Map 134 is proposed at the Hollister Quarry Mitigation Parcel in the Otay Valley Regional Park. The location of the mitigation site is shown on Figure 8. 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.

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: Comparison of Proposed and Previous Maintenance Areas
Figure 5: Existing Vegetation and Sensitive Biological Resources
Figure 6: Sensitive Species Occurrences within One-half Mile of Project Location
Figure 7: Waters of the U.S./State and City Wetlands
Figure 8: 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

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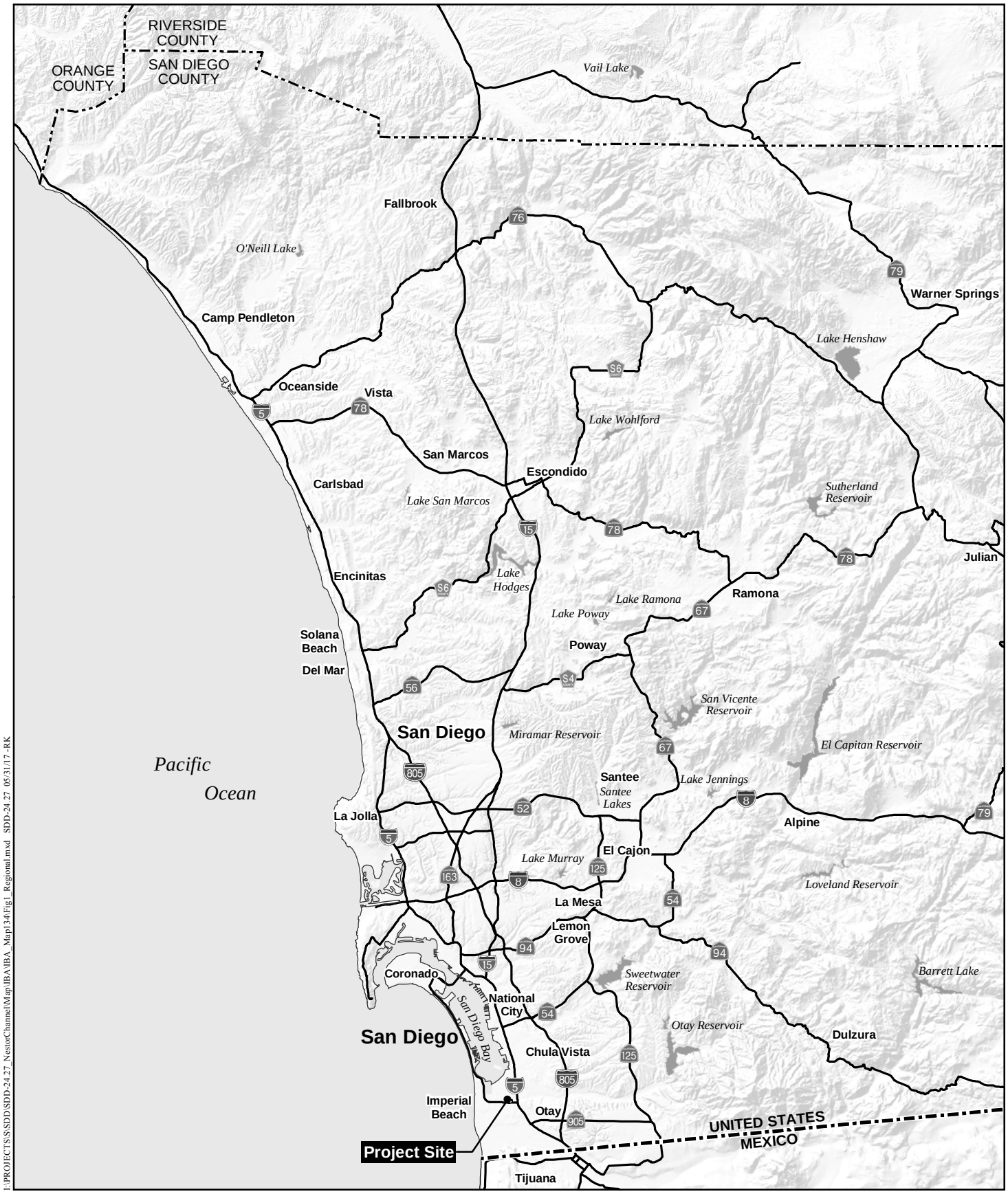
SITE PHOTOS

PHOTO NOTES:
Reach 1, looking downstream from the upstream end (9/15/16).

PHOTO NOTES:
Reach 1, looking downstream from the middle (9/15/16).

PHOTO NOTES:
Near Reach 1, looking west at the loading area adjacent to Nestor Creek (9/15/16).



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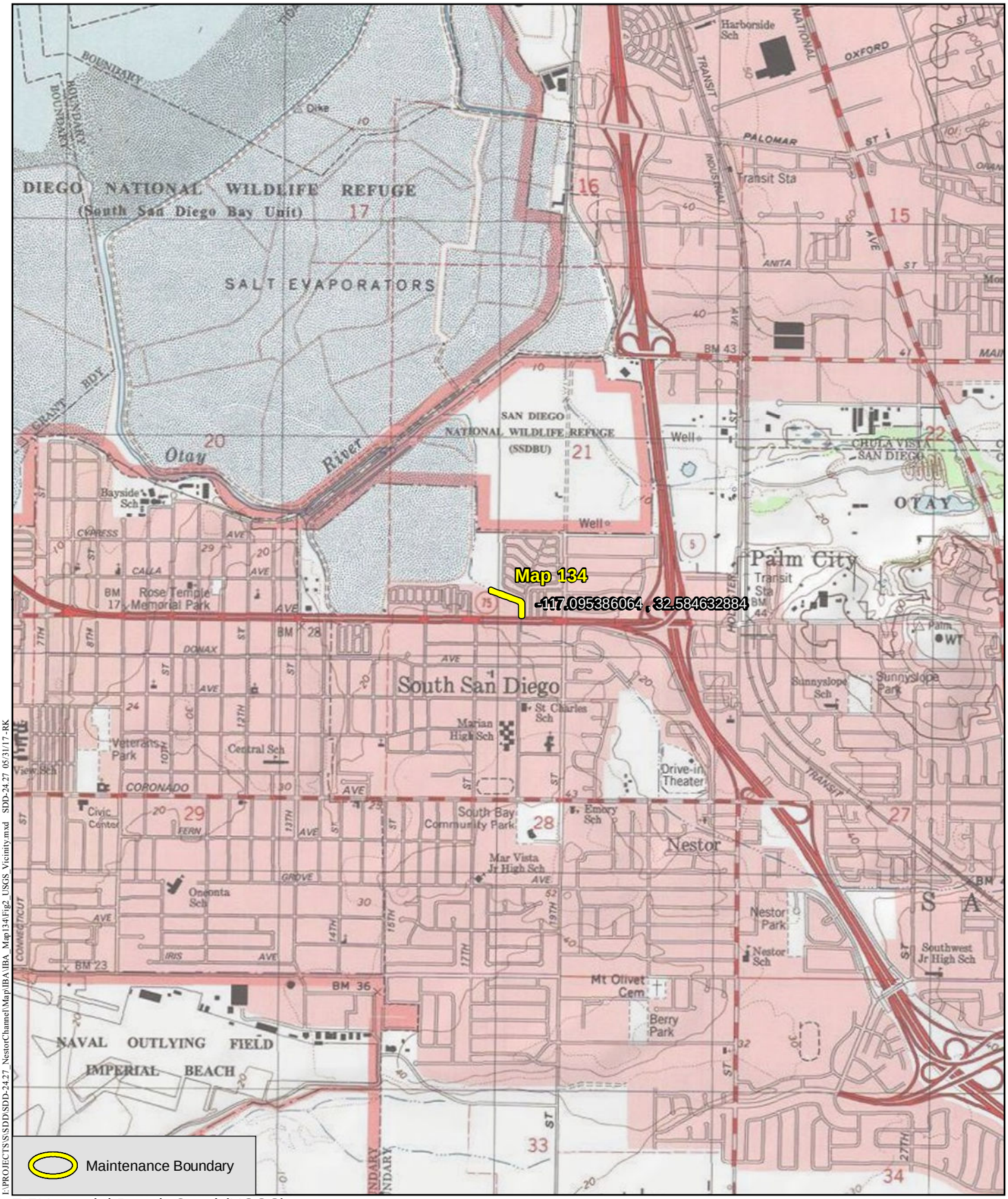
Regional Location Map

NESTOR CREEK CHANNEL MAINTENANCE PROJECT

HELIX Environmental Planning

N 0 8 Miles

Figure 1



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7.5' Imperial Beach Quad (USGS)
Section: 21
Township: 18S
Range: 02W

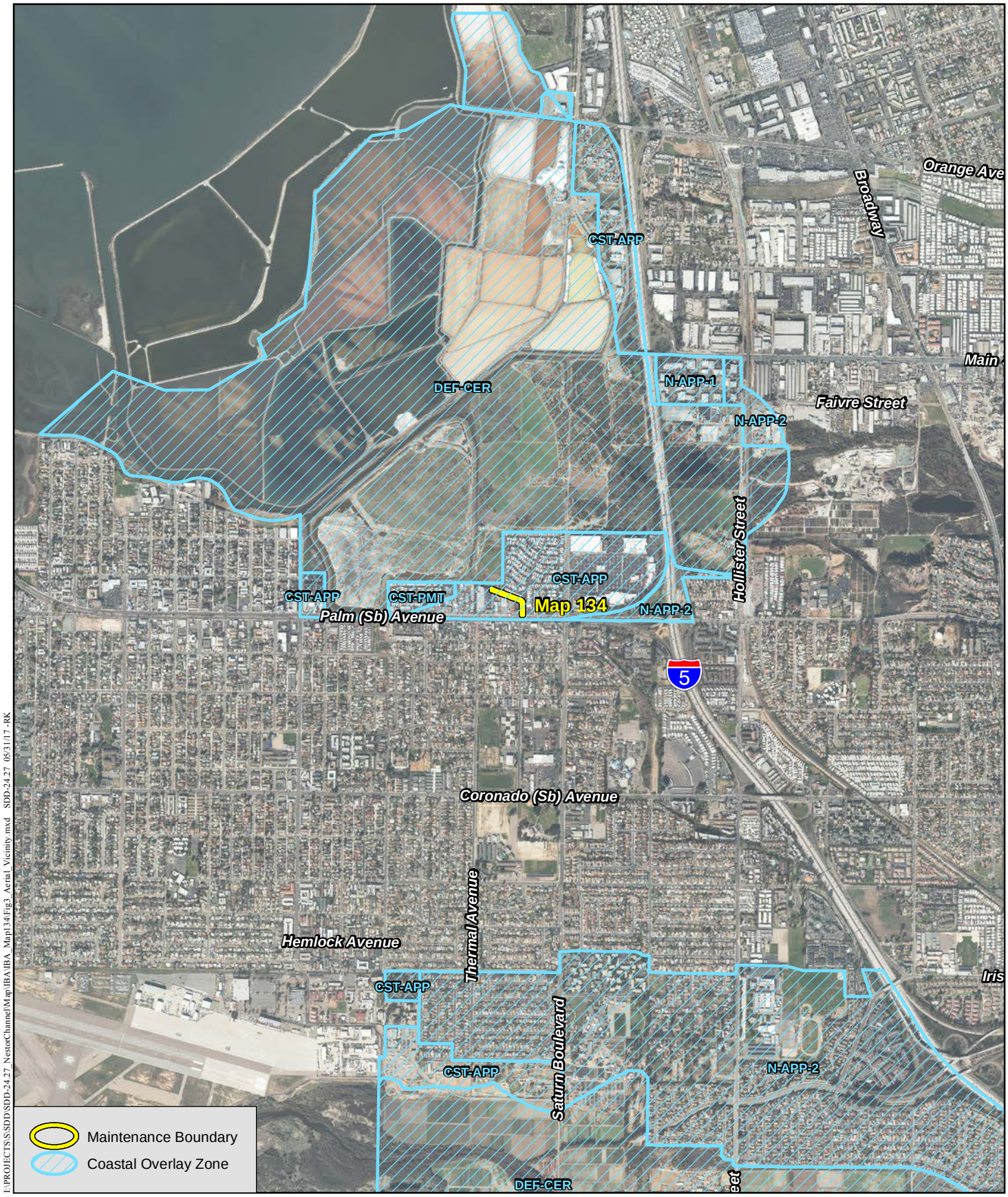
Project Vicinity (USGS Topography)

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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Comparison of Proposed and Previous Maintenance Areas (Map 134)

NESTOR CREEK CHANNEL MAINTENANCE PROJECT

HELIX Environmental Planning

N 0 100 Feet

Figure 4

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Existing Vegetation and Sensitive Biological Resources, Nestor Creek Channel - Map 134/Reach 1

NESTOR CREEK CHANNEL MAINTENANCE PROJECT

Figure 5

HELIX Environmental Planning

N 0 100 Feet

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

NESTOR CREEK CHANNEL MAINTENANCE PROJECT

Figure 6

HELIX Environmental Planning

N 0 1,000 Feet

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Existing Jurisdictional Areas Nestor Creek Channel - Map 134/Reach 1

NESTOR CREEK CHANNEL MAINTENANCE PROJECT

HELIX Environmental Planning

N 0 100 Feet

Figure 7

I:\PROJECTS\S\SDD\SDD-24.27_NestorChannel\Map\IBA\IBA_Map134\Fig8_Mitigation_Location.mxd SDD-24.27 11/14/17 - RK

Project Site and Mitigation Location

NESTOR CREEK CHANNEL MAINTENANCE PROJECT

HELIX Environmental Planning

N 0 900 Feet

Figure 8

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 not applicable)

(Mitigation Measure 4.3.19 not applicable)

(Mitigation Measure 4.3.20 not applicable)

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 not applicable)

(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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La Mesa, CA 91942
619.462.1515 **tel**
619.462.0552 **fax**
www.**helixepi**.com

June 9, 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 methods and results of a California Rapid Assessment Method (CRAM) analysis conducted for the Nestor Creek Channel Map No. 134. Maintenance Project (project) by HELIX Environmental Planning, Inc. (HELIX). The CRAM score will be used to document the condition of the Nestor Creek Channel prior to maintenance and will be used for comparison with the restoration area 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). A desktop CRAM assessment was performed by HELIX biologist Erica Harris, a trained CRAM practitioner, on October 7, 2016 using field data collected on September 15, 2016 by HELIX biologist Ben Rosenbaum. The CRAM assessment was conducted within one AA, AA-134, which covers Nestor Creek Map 134/Reach 1.

Overall CRAM scores were calculated by averaging the scores for each of the three CRAM Attributes. The 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.

RESULTS

A summary of the CRAM results is provided in Table 1; the results are explained in text following Table 1. The CRAM assessment data sheets and maps are provided in Attachment A

and explain how the scores were calculated.

Table 1*
CRAM DATA SUMMARY

CRAM ATTRIBUTES	METRICS		AA-134 SCORE*
Buffer and Landscape Context	Stream Corridor Continuity		3
	Buffer Sub-metrics:		
	– Percent of Assessment Area with Buffer		3
	– Average Buffer Width		3
	– Buffer Condition		3
	Attribute Score (Raw/Final)		**6.0/25.0**
Hydrology	Water Source		6
	Channel Stability		6
	Hydrologic Connectivity		3
	Attribute Score (Raw/Final)		**15.0/41.7**
Structure	Physical	Structural Patch Richness	3
		Topographic Complexity	3
	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	3
		Horizontal Interspersion	3
		Vertical Biotic Structure	3
	Attribute Score (Raw/Final)		**10.0/27.8**
		OVERALL AA SCORE	**30**

*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. All three AAs 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-134 scored low since there little buffer present around the AA composed of a narrow, disturbed dirt lot.

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. The AA received moderate scores for Water Sources as the channel if primarily feed by urban runoff and other artificial 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-134 received a moderate score for channel stability since it is partially artificially hardened and 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 the AA is a narrow channel containing steep slopes, partially concrete lined, and contains features that can impede the flow of water, floodwaters can rise quickly and result in stress to wetland plants and animals. Therefore, the AA received a low 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. The AA received a low score for Structural Patch Richness in that it supported three patch types 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 and AA-132 received low scores since they are partially or wholly concrete-lined channels with little to no Topographic Complexity present. AA-134 received a low score since it is a concrete-lined channel with no Topographic Complexity present.

Biotic Structure

Plant Community Sub-metrics

AA-134 received low scores for the number of plant layers (two layers) present, the number of co-dominant species (2 species), and percent invasion (50 percent).

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-134 is represented by two plant zones with minimal edge between plant zones present 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-134 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 that the Nestor Creek channel is partially concrete-lined flood control channel within urbanized areas, the structural complexity and size of the AA is limited and thus, scored low. The overall CRAM score was 30 for AA-134.

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

Sincerely,

Erica Harris
Biologist

Enclosures:
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 134 - north of Balm

Project Name: Nestor Creek Channel maintenance

Assessment Area ID #: AA134

Project ID #: SDD-24.27 **Date:** ~~10/17/16~~ 9/15/16

Assessment Team Members for This AA:

Erica Harris

Average Bankfull Width: 24 feet

Approximate Length of AA (10 times bankfull width, min 100 m, max 200 m): ~~180 ft~~ 170 m

Upstream Point Latitude: **Longitude:**

Downstream Point Latitude: 32°35'02.55" **Longitude:** 117°05'41.12"

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	Longitude	Datum
1	—	Upstream	—	—	—
2	—	Middle Left	—	—	—
3	6171	Middle Right	32°35'04.60"	117°05'41.12"	
4	6170 7	Downstream	32°35'03.05"	117°05'40.96"	
5					
6					
7					
8					
9					
10					

Site Location Description:

concrete lined drainage north of palm Ave.

Comments:

access to channel restricted by locked fences/gates.

CRAM conducted in office on 10/7/16; site assessment data collected on 9/15/16 used to conduct assessment

Scoring Sheet: Riverine Wetlands

AA Name:				Date:
Attribute 1: Buffer and Landscape Context (pp. 11-19)				**Comments**
Stream Corridor Continuity (D)		Alpha. D	Numeric 3	upstream segs underground channels w openings
Buffer:				
Buffer submetric A: Percent of AA with Buffer	Alpha. D	Numeric 3		7% with buffer
Buffer submetric B: Average Buffer Width	D	3		avg. buffer = 5m
Buffer submetric C: Buffer Condition	D	3		buffer consists of fenced dirt lot
Raw Attribute Score = D+[C x (A x B)^{½}]^{½}			6	**Final Attribute Score = (Raw Score/24) x 100** 25
Attribute 2: Hydrology (pp. 20-26)				
Water Source		Alpha. C	Numeric 6	more than 20% urban runoff + agriculture
Channel Stability		~~BC~~	~~4~~ 6	some degradation not severe
Hydrologic Connectivity		D	3	RAMD = 1.1
Raw Attribute Score = sum of numeric scores			~~18~~ 15	**Final Attribute Score = (Raw Score/36) x 100** ~~50~~ 41.7
Attribute 3: Physical Structure (pp. 27-33)				
Structural Patch Richness		Alpha. D	Numeric 3	3 patch types
Topographic Complexity		D	3	concrete channel
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-dominants
Plant Community submetric C: Percent Invasion	D	3		50% invasion
Plant Community Composition Metric *(numeric average of submetrics A-C)*			4	
Horizontal Interspersion		D	3	minimal
Vertical Biotic Structure		D	3	Less than 25% overlap
Raw Attribute Score = sum of numeric scores			18	**Final Attribute Score = (Raw Score/36) x 100** 28
Overall AA Score (average of four final Attribute Scores)				~~32~~ 30

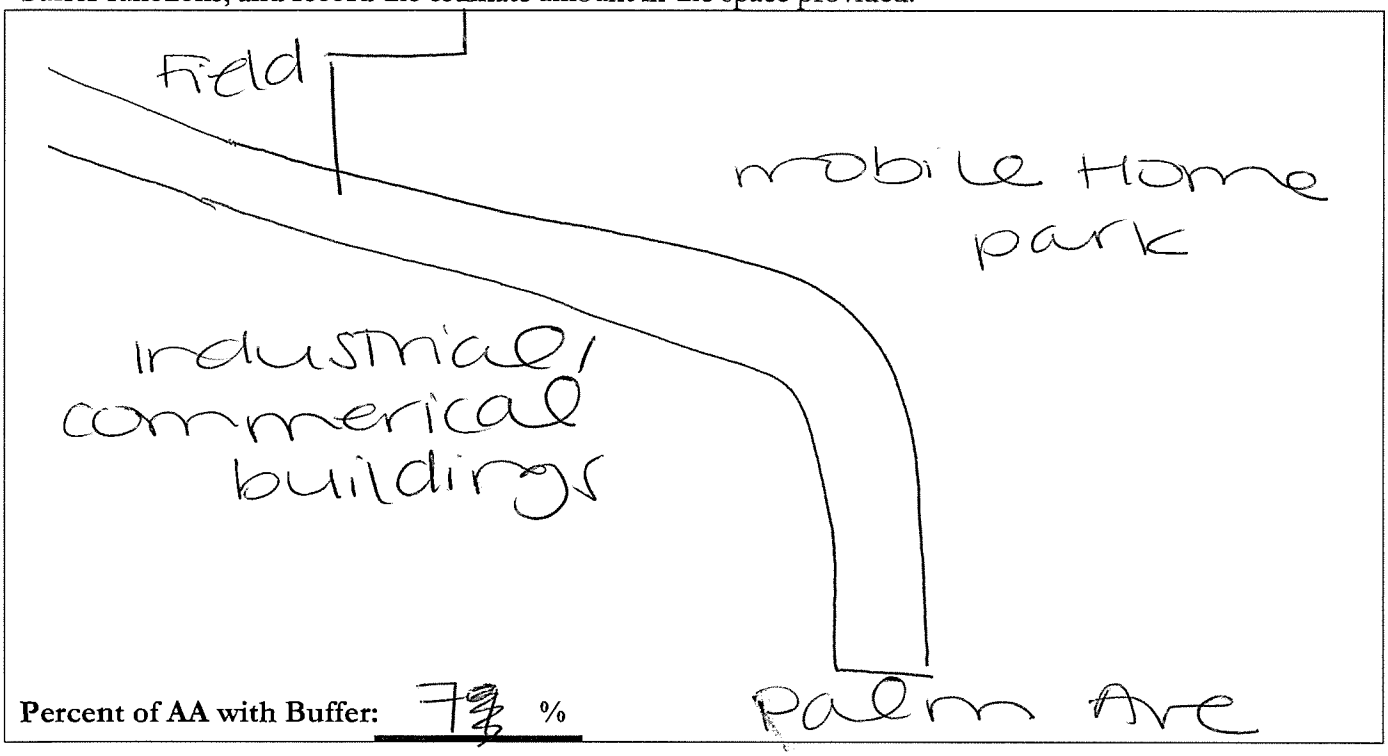
Channel is partially artificially hardened

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	80	1	0
2	476	2	0
3	0	3	0
4	0	4	0
5	0	5	0
Upstream Total Length	556	Downstream Total Length	0

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: 7% %

Worksheet for calculating average buffer width of AA

Line	Buffer Width (m)
A	40
B	0
C	0
D	8
E	8
F	8
G	8
H	0
Average Buffer Width *Round to the nearest integer*	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.	1605'	28'	28'
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).	2"	2"	2"
3: Estimate flood prone depth.	Double the estimate of maximum bankfull depth from Step 2.	4"	4"	4"
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.	24'	28'	28'
5: Calculate entrenchment ratio.	Divide the flood prone width (Step 4) by the bankfull width (Step 1).	1.4	1	1
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.			1.1

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.

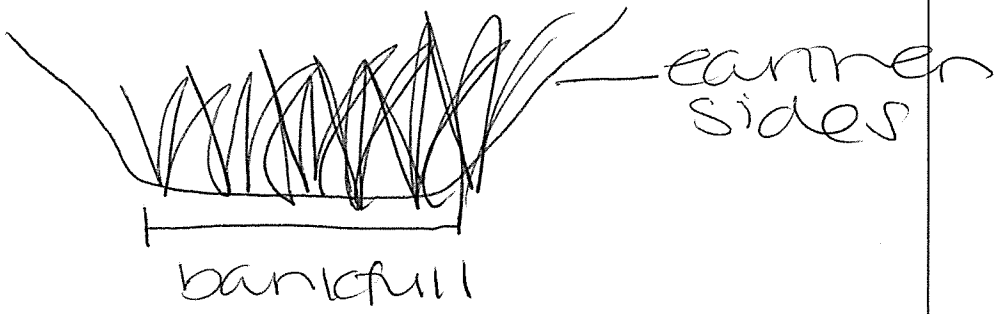
**Please refer to the CRAM Photo Dictionary at www.cramwetlands.org for photos of each of the following patch types.*

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)		3

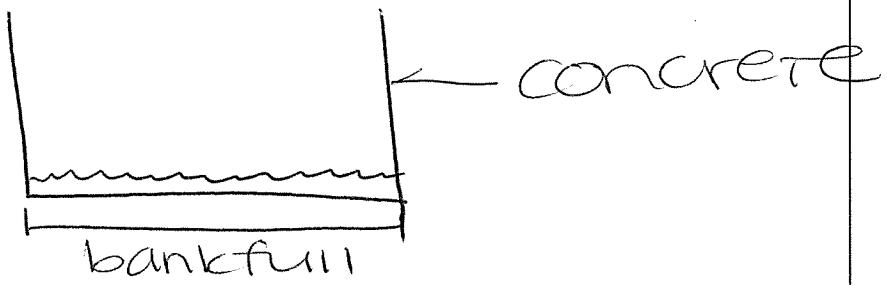
Worksheet for AA Topographic Complexity

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.

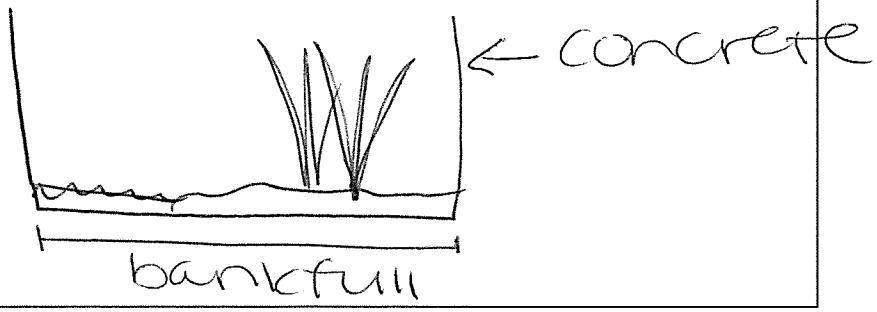
Profile 1 upstream



Profile 2 mid-reach middle



Profile 3 downstream



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

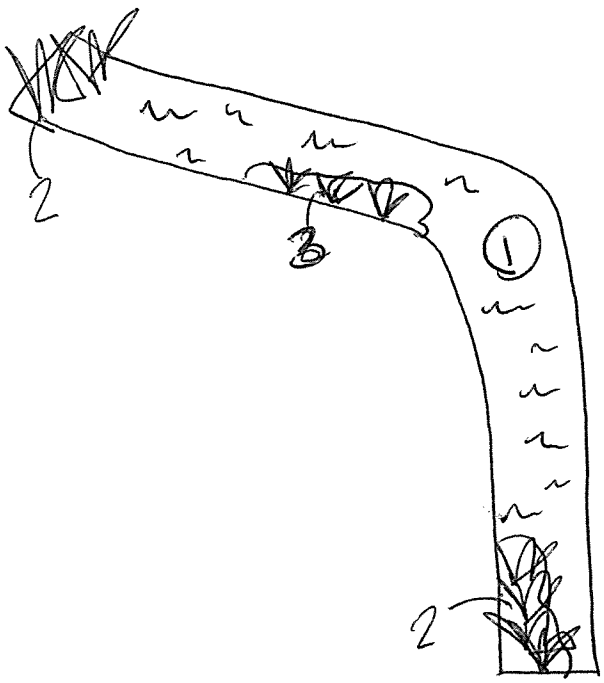
Special Note:

* *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?
		cyn dac	X
Medium (0.5-1.5 m)	**Invasive?**	**Tall (1.5-3.0 m)**	**Invasive?**
		schoenoplectus	
Very Tall (>3.0 m)	**Invasive?**	**Total number of co-dominant species for all layers combined (enter here and use in Table 18)**	2
		Percent Invasion *Round to the nearest integer* (enter here and use in Table 18)	50

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) open water
2) FLOW
3) HW
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)		✓
Flow diversions or unnatural inflows		✓
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		✓
Weir/drop structure, tide gates		
Dredged inlet/channel		✓
Engineered channel (riprap, armored channel bank, bed)	✓	
Dike/levees		
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology	✓	
Comments		
concrete stormwater channel through heavily urbanized area		

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		
Excessive runoff from watershed		X
Nutrient impaired (PS or Non-PS pollution)	X	
Heavy metal impaired (PS or Non-PS pollution)	X	
Pesticides or trace organics impaired (PS or Non-PS pollution)	X	
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse	X	
Comments		
agricultural & open fields within upstream area		

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Significant negative effect on AA
Mowing, grazing, excessive herbivory (within AA)		
Excessive human visitation	X	
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	X	X
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		
Comments		
Concrete channels actively managed with periodic sediment + vegetation removal		

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	X	
Dams (or other major flow regulation or disruption)		
Dryland farming		
Intensive row-crop agriculture	X	
Orchards/nurseries	X	
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor	X	
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.)	X	
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments surrounding area heavily developed with mixed uses		

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CRAM Analysis - Map 134

NESTOR CREEK CHANNEL MAINTENANCE PROJECT

HELIX Environmental Planning

0 275 Feet

Attachment 3

Plant Species Observed in the Nestor Creek Channel

Attachment 3
Plant Species Observed in Nestor Creek Channel Map 134

Family	Species Name	Common Name	Habitat[1]
	Native Species		
Cyperaceae	*Schoenoplectus californicus*	California bulrush	FWM
Typhaceae	*Typha* sp.	cattail	FWM
	Non-native Species[2]		
Chenopodiaceae	*Salsola tragus*	Russian thistle	DH
Poaceae	***Arundo donax***	giant reed	AR
	***Avena* sp.**	oats	DH

[1]Habitats: AR=Arundo-dominated Riparian; DH=Disturbed Habitat; DW=Disturbed Wetland; FWM=Freshwater Marsh;
[2]Invasive species in boldface

Attachment 4

Wildlife Species Observed in the Nestor Creek Channel

Attachment 4
WILDLIFE SPECIES OBSERVED
IN NESTOR CREEK CHANNEL MAP 134

SPECIES NAME	COMMON NAME
Vertebrates	
• *Corvus brachyrhynchos*	American Crow
• *Falco sparverius*	American Kestrel
• *Calypte anna*	Anna's Hummingbird
• *Sayornis nigricans*	Black Phoebe
• *Corvus corax*	Common Raven
• *Sturnus vulgaris*	European Starling
• *Larus* sp.	Gull
• *Haemorhous mexicanus*	House Finch
• *Passer domesticus*	House Sparrow
• *Anas platyrhynchos*	Mallard
• *Zenaida macroura*	Mourning Dove
• *Melospiza melodia*	Song Sparrow
• *Zonotrichia leucophrys*	White-crowned Sparrow
• *Setophaga coronata*	Yellow-rumped Warbler

Attachment 5

Preliminary Jurisdictional Deliniation

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: Feb 7, 2018

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: 277 linear ft | 28 width | 0.27 acres | Stream Flow: Per. (seasonal)

Wetlands: 0.10 acre(s) | Cowardin Class: Palustrine, emergent

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: Sep 15, 2016

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: Attachment 2 and 4
- ☐ 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:	Feb 7, 2018
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
134, R1a	32.584972	-117.095899	Riverine	0.01	Non-Section 10 non-wetlanc
134, R1b	32.584680	-117.094950	Riverine	0.26	Non-Section 10 wetland
134, R1b	32.584123	-117.094768	Palustrine, emergent	0.10	Non-Section 10 wetland
			n/a		Non-Section 10 wetland

Notes:

Reach 1 is approximately 630 feet long and divided by substrate into Reach 1a (earthen-bottom) and Reach 1b (concrete-bottom). Reach 1a is 65 feet and Reach 1b is approximately 565 feet long.

Reach 1a contains 0.01 acre of non-wetland waters.
Reach 1b contains 0.26 acre of non-wetland waters and 0.10 acre of wetland waters (composed of freshwater marsh and disturbed wetland communities)