

INDIVIDUAL BIOLOGICAL ASSESSMENT REPORT

Site Name/Facility: Sorrento/Soledad/Los Peñasquitos/Flintkote

Master Program

Map No.: 7, 8, 9, 10, 11, and 12

Date: May 2013 (corrected September 2013 in ~~strikeout~~/underline)

Biologist Name/Cell

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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 preparing 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 (MMP, Master Maintenance Program) (City of San Diego 2011a) to govern channel operation and maintenance activities in an efficient, economic, environmentally and aesthetically acceptable manner to provide flood control for the protection of life and property. This document provides a summary of the Individual Biological Assessment (IBA) for proposed maintenance activities within the Soledad/Sorrento Creek Channel (**Reach 3**) and the 11000 Roselle Street/11100 Flintkote Avenue Channel (**Reach 7**) in order to comply with the MMP's Programmatic Environmental Impact Report (PEIR) (City of San Diego 2011b).

IBA procedures under the MMP provide the guidelines for a site-specific inspection of the proposed maintenance activity site including access routes, and temporary spoils storage and staging areas. A qualified biologist determines whether or not sensitive biological resources could be affected by the proposed maintenance and potential ways to avoid impacts in accordance with the measures identified in the Mitigation, Monitoring and Reporting Program (MMRP) 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.

Project Location and Description

The channels associated with this assessment report are located in the Sorrento Valley area, within the jurisdiction of the City of San Diego (City). The major drainage facilities that serve the region consist of the Soledad Canyon Channel (commonly known as the Sorrento Creek

EXISTING CONDITIONS

Channel), the Los Peñasquitos Creek, the 11000 Roselle Street/11100 Flintkote Avenue Channel (commonly known as the Flintkote Channel), and the Dunhill Street at Roselle Street Channel (commonly known as the Dunhill Street Channel). The Sorrento Creek Channel is included in Maps 7, 11, and 12 of the MMP, the Los Peñasquitos Creek is included in MMP Map 7 and 8, the Flintkote Channel is included in MMP Map 9, and the Dunhill Street Channel is included in MMP Map 10.

The project is generally located in Sorrento Valley at the Interstate 5/Interstate 805 interchange within the City's Coastal Overlay Zone and Torrey Pines Community Plan and Local Coastal Program (LCP). The project area is zoned IL-3-1 (Industrial-Light) and designated for Industrial and Open Space land uses in the Torrey Pines Community Plan LCP. Reaches 3 and 7 are adjacent to the City's Multiple Species Conservation Program's (MSCP) Multi-Habitat Planning Area (MHPA) located near the confluence area. The project area is also located within the Federal Emergency Management Agency's (FEMA) Special Flood Hazard Areas subject to inundation by the 1-percent Annual Chance Flood and 100-year floodway.

For purposes of this assessment, every drainage facility in the Sorrento Valley area has been assigned a Reach number (1 through 8).

REACHES:

Sorrento Creek – Reach 1:

Reach 1

Sorrento Creek (MMP Map 7-Los Peñasquitos Creek): Reach 1 is an earthen-bottom channel that extends from the southerly boundary of the Torrey Pines Preserve, which is located opposite to Estuary Way, to a point approximately 738 feet to the southeast where the Los Peñasquitos Creek's Reach 4, confluences with Sorrento Creek's Reach 2. The Reach 1 main channel top width is approximately 100 feet, and the channel bottom width varies from approximately 60 to 90 feet. The original channel configuration identified in the 1997 Sorrento Creek Emergency Project and the redesigned 2006 Sorrento Creek Maintenance Project included an additional 980 linear feet north into the Torrey Pines State Reserve.

Soledad Creek – Reaches 2 and 3:

Soledad Creek (MMP Maps 11 & 12 – Soledad Creek): Soledad Creek can be segmented into two distinct channel types: a) Earthen, Reach 2, and b) Concrete-lined, Reach 3.

Reach 2

Earthen-portion of Soledad Creek (MMP Map 11): Reach 2 is also an earthen-bottom channel that extends to the southeast for approximately 1,590 feet from the upstream end of Reach 1 to the downstream end of Sorrento Creek's Reach 3. The Reach 2 main channel top width varies in width from approximately 10 to 20 for most of its length, while it transitions to approximately 45 feet at its upstream end. The channel bottom width varies from approximately 8 to 15 feet.

EXISTING CONDITIONS

Reach 3

Concrete-lined portion of Soledad Creek (MMP Maps 11 & 12-Soledad Creek): Reach 3 is a trapezoidal concrete-lined channel that extends from the southerly end of Reach 2 to the southeast for approximately ~~2290~~2,280 feet to a point located approximately 1,550 feet to the southeast of Sorrento Valley Boulevard, where the trapezoidal concrete-lined channel ends and transitions to an earthen-bottom channel. The trapezoidal channel geometry consists of a 5-foot deep, 63-foot wide bottom, and 1.5-to-1 side slope section.

Los Peñasquitos Creek – Reaches 4 through 6:

Los Peñasquitos Creek (MMP Map 8-Los Peñasquitos Creek): Similar to the Sorrento Creek Channel, the Los Peñasquitos Creek was also divided into three reaches, Reach 4, 5, and 6. Reach 4 is bound by commercial complexes to the north, and by Sorrento Valley Boulevard to the south. Reach 5 is within Caltrans right-of-way, and it is completely below the Interstate 5/Interstate 805 merge bridges. Reach 6 is bound by undeveloped open space to the north, and by commercial/light industrial complexes to the south. Reaches 4, 5, and 6 flow roughly in an east to west direction and confluence with Reach 2. Reach 4 extends for approximately 1,350 feet from the confluence with Reach 2, to the west side of the Interstate 5 southbound bridge. Reach 5 extends for approximately 635 feet from Reach 4 to the east side of Caltrans northbound on-ramp bridge. Reach 6 extends to the east for approximately 1,170 feet from the east end of Reach 5. Reaches 4 and 6 consist of an earthen-bottom channel, while Reach 5 is a concrete-lined channel. Reach 4 through 6 vary in bottom width from 75 to 100 feet, with 1.5-to-1 side slopes that are protected with riprap.

Flintkote Channel – Reach 7:

Reach 7

Flintkote channel (MMP Map 9-11000 Roselle St/11100 Flintkote Ave): Reach 7 is a trapezoidal concrete-lined channel that extends for approximately ~~1100~~1,000 feet, from the easterly side of Flintkote Avenue, to the Sorrento Creek Reach 2 near the stream confluence. Reach 7 flows roughly in a southwest to northeast direction, bisecting a light industrial park along its entire length, and crossing Roselle Street. A 2-foot high, 12-foot wide culvert conveys the storm flows under Roselle Street and a dual 36-inch Reinforced Concrete Pipe (RCP) culvert discharges the storm flows into Sorrento Creek's Reach 2. The trapezoidal geometry is described as a 4-foot deep, 8-foot wide bottom, and 1-to-1 side slopes.

Reaches 6 and 8 are not included in this assessment because they were eliminated from further consideration for maintenance prior to calculation of vegetation acreage.

It is important to note that **Reach 3** (Soledad/Sorrento Creek) and **Reach 7** (Flintkote Channel) are the focal drainage facilities of this assessment (Figures 1A, 1B, and 1C). The remaining reaches (1, 2, 4, 5, 6, and 8) are not currently proposed for maintenance, and are not discussed further in this IBA. Detailed assessments pertaining to Reaches 1, 2, 4, 5, 6, and 8 will be prepared as maintenance activities for those areas are developed and proposed.

EXISTING CONDITIONS

Survey Methods and Date:

Desktop Review

URS conducted research and review of existing project documentation and permits as part of this biological assessment. Document review included the Master Maintenance Program; Master Maintenance Program Final Recirculated Program Environmental Impact Report (October 2011) and Appendices; ~~Master~~ Army Corps of Engineers (ACOE) Permit SPL-2010-00985-MBS2009-00719-RS; California Regional Water Quality Control Board, San Diego Region, Amendment to Clean Water Act Section 401 Water Quality Certification No. 06C-062 for the Sorrento Creek Channel Maintenance Project (May 31, 2012); California Department of Fish and Wildlife Streambed Alteration Agreement #1600-2006-0183-R5 (October 31, 2006); California Regional Water Quality Control Board, San Diego Region, Section 401 Water Quality Certification and Waiver of Waste Discharge Requirements for Discharge of Dredged and/or Fill Materials for the Sorrento Creek Channel Maintenance Project (File No. 06C-062), June 14, 2006; California Coastal Commission, Coastal Development Permit No. A-6-NOC-11-086 (November 29, 2012); the July 20, 2012 Dudek Memo entitled Summary Regulatory Evaluation for Three Priority Coastal Zone Channel Maintenance Areas – Sorrento Valley, Tijuana River Valley, and Mission Bay; and the URS 2012 Memo entitled Potential Mitigation Sites in the Los Peñasquitos Watershed within the Coastal Zone for the Master Storm Water System Maintenance Program (Master Maintenance Program).

Potential occurrence of sensitive species was determined by a habitat suitability assessment and a review of historical records from the California Natural Diversity Database (CNDDDB, accessed February 11, 2013), and from the U.S. Fish and Wildlife Service, Carlsbad Office's Listing of Multiple Species database (accessed February 11, 2013). Only species (on the CNDDDB or USFWS lists for the area) that are found in riparian or marsh habitats and noise-sensitive species that may occur in adjacent upland habitat were included in the impact considerations. Staging areas may impact upland, non-riparian habitat but these areas are either disturbed, ornamental, or developed and do not include any coastal sage scrub habitat or other sensitive uplands. A CNDDDB search was conducted for the U.S. Geological Survey 7.5 minute quadrangle (Del Mar) encompassing the maintenance area for special status species occurrences (Attachment 1). A half mile buffer was used to specifically assess the potential for sensitive species in Reaches 3 and 7, the focus of this IBA (Figure 2).

Biological Survey and Site Assessment

URS conducted the biological survey and site assessment on March 15, 2013. Surveys were conducted on foot. Part of Reach 3 was assessed from within the channel while all other reaches were visually assessed from the channel banks. Vegetation was mapped based on site observations and interpretation of aerial photographic signatures (scale 1"=50'), according to the R.F. Holland system (1986) as modified for San Diego County, in accordance with the City of San Diego "Guidelines for Conducting Biological Surveys" (2002). For consistency with the PEIR and original Biological Resources Technical Report, this IBA report uses the 1986 version of the Holland system, not the 1996 Oberbauer modification for San Diego County.-

EXISTING CONDITIONS

Areas on site that supported less than 20% native plant species cover were mapped as disturbed habitat and areas that supported at least 20% native plant species, but fewer than 50% native cover were mapped as a disturbed native vegetation community (e.g., disturbed southern willow scrub). All plant and animal species detected by sight, calls, tracks, scat, or other signs were recorded. Observed sensitive species were documented and potential for sensitive species occurrence was evaluated based on site conditions. Representative photographs taken during the surveys are provided in this report. Protocol-level surveys were not conducted as a part of this site assessment. A site-specific jurisdictional delineation was not performed as a part of this site assessment.

Biological Resources:

Stream Type:	Perennial	<input checked="" type="checkbox"/>	Intermittent	<input checked="" type="checkbox"/>	Ephemeral	<input type="checkbox"/>
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Stream type designations are based on USGS topographical map stream designations and field visit review of the stream channels. Reach 3 was determined to be perennial northwest of Sorrento Valley Boulevard and intermittent southeast of Sorrento Valley Boulevard. Reach 7 was determined to be perennial due the assumption that it receives year-round contributions from urban sources.

Vegetation:

For purposes of this IBA, only vegetation or land covers within the proposed maintenance area (Reaches 3 and 7), including associated work areas (i.e., Access, Loading, Staging Areas), are described below.

A total of one vegetation community and three land cover types were identified during this assessment: freshwater marsh, non-native vegetation/ornamental, disturbed/ruderal habitat, and developed which is broken down into developed/non-vegetated concrete-lined channels) and developed (buildings/streets/parking lots). See PEIR Appendix D.1 [Biological Resources Report] for general descriptions of vegetation categories (City 2011b).

Vegetation acreages within the survey area are summarized in Tables 1 and 2 below.

Table 1. Existing Waters of the U.S./State in Study Area by Reach

Vegetation Community or Land Cover Type (Holland Code)	City MSCP Habitat Designation/Tier	3 (ac.)	7 (ac.)	Total (ac.)
Freshwater Marsh (52400)	Freshwater Marsh/None	0.63	0.18	0.81
Developed/Concrete-lined Channel (12000)	Disturbed/Tier IV ¹	2.65	0	2.65
Total		3.28	0.18	3.46

¹ Although described in Appendix D, Section 3.1.2 of the PEIR as a Tier IV upland community, concrete-lined channels are considered waters of the U.S. and as such are subject to regulation by the ACOE, CDFW, RWQCB, and City).

EXISTING CONDITIONS

Table 2. Existing Uplands Vegetation in Study Area by Reach

Vegetation Community or Land Cover Type (Holland Code)	City MSCP Habitat Designation	3 (ac.)	7 (ac.)	Total (ac.)
Developed (12000)	Disturbed/Tier IV	0.11	0.31	0.42
Disturbed/Ruderal Habitat (12000)	Disturbed/Tier IV	0.04	0	0.04
Non-Native Vegetation/Ornamental (12000)	Disturbed/Tier IV	0.02	0.01	0.03
Total		0.17	0.32	0.49

Reach 3

Study (and Maintenance) Area:

Habitat within the study (proposed maintenance) area of Reach 3 is freshwater marsh and developed/concrete-lined channel. Reach 3 (referred to as the Sorrento/Soledad Creek Channel) is a fully-lined concrete, trapezoidal channel where sediment has accumulated and vegetation grows.

Freshwater Marsh

Where habitat is mapped as freshwater marsh, the channel contains a lot of accumulated sediment supporting herbaceous vegetation and young trees from the northwestern or downstream end of the reach all the way up to the intersection of the Interstate 5 northbound off-ramp and Roselle Street. Two sycamore trees (*Platanus racemosa*) are present along the northeastern bank at this location. The main species growing within the channel included:

- Cattails (*Typha* sp.)
- Young arroyo willows (*Salix lasiolepis*)
- Mulefat (*Baccharis salicifolia*).
- Other species observed are presented in Attachment 5.

Developed/Concrete-lined Channel

Southeast of this area where land cover is mapped as developed/concrete-lined channel, there is some cobble, algae, and limited herbaceous vegetation. At the southwest end of Reach 3, the concrete ends and the habitat immediately transitions into riparian woodland.

Staging, Loading and Access Areas

Developed

Two fueling areas and portions of the two access areas of Reach 3 consist of developed areas that include paved surfaces such as sidewalks, streets, and other paved areas (concrete access ramp into Reach 3). These areas are located along Roselle Street.

Disturbed/Ruderal

EXISTING CONDITIONS

A small portion of the access area near the mid-point of Reach 3 and a bulk of the staging area at the northwestern end of Reach 3 contain disturbed/ruderal habitat, consisting mostly of barren dirt and a few ruderal, non-native plant species.

Non-native Vegetation/Ornamental

Portions of access areas and one staging area contain small amounts of non-native and/or ornamental vegetation. Ornamental vegetation consists of landscape vegetation located at the northwestern end of Reach 3, while non-native vegetation consists of many common non-native species.

Reach 7

Study (and Maintenance) Area

Reach 7 (Flintkote Channel) is a small, fenced, concrete-lined drainage ditch consisting of freshwater marsh habitat.

Freshwater Marsh

Vegetation included freshwater marsh species and some upland species growing in drier areas or in cracks along the concrete channel lining. The dominant species growing within the channel was:

- Cattails (*Typha* sp.)
- Other species observed are presented in Attachment 5.

Staging, Loading and Access Areas

Developed

The staging areas and two of the three access areas are developed areas, including parking lots and portions of streets. The lone staging area is located in a parking lot to the west of the northern end of Reach 7, north of Roselle Street. One of the two developed access areas are located in a parking lot east of Reach 7, just south of Roselle Street, while the other access area is located on a portion of Flintkote Avenue at the southern end of Reach 7.

Non-native Vegetation/Ornamental

A small portion of the Reach 7 access area contains non-native vegetation/ornamental. This access area is located at the northeastern end of Reach 7 and contains a variety of non-native vegetation.

Special-Status species:

Sensitive species records and observations are discussed in more detail in the Sensitive Plants/Animals Observed sections below.

San Diego sagewort (*Artemisia palmeri*) was detected just outside of the staging area of Reach 3, but not within the maintenance area. This is a California Native Plant Society List 4.2 species. List 4 species are plants of limited distribution and the threat

EXISTING CONDITIONS

rank of 0.2 means the plant is fairly threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat).

The following sensitive wildlife species have a potential to occur in the area based on the presence of suitable habitat:

Least Bell's Vireos (*Vireo bellii pusillus*) CNDDDB occurrences are located just outside the 750 foot noise analysis buffer at Reach 3, but does not occur within existing habitat at Reaches 3 or 7 due to lack of suitable habitat.

Coastal California Gnatcatchers (*Polioptila californica*) are unlikely to breed adjacent to the maintenance areas. Potential gnatcatcher habitat is present within the 750 foot noise analysis buffer for Reach 7; however, the habitat and maintenance areas are separated by other noise sources such as roadways and developed areas.

Several raptor species were observed during the site visit that could nest in the vicinity of the maintenance areas including the State Fully Protected White-tailed Kite (*Elanus leucurus*), Northern Harrier (*Circus cyaneus*), Red-shouldered Hawk (*Buteo lineatus*), and Red-tailed Hawk (*Buteo jamaicensis*).

Wildlife value:

Freshwater marsh areas provide small patches of habitat for waterfowl and shorebirds. Reach 3 may serve as wildlife a corridor by connecting larger patches of habitat that would otherwise be isolated by development. Wildlife species observed during the site assessment are listed below by Reach.

Reach 3

Wildlife observed in, along, and over Reach 3 include:

- American Crow (*Corvus brachyrhynchos*)
- Cassin's Kingbird (*Tyrannus vociferans*)
- Common Yellowthroat (*Geothlypis trichas*)
- Cooper's Hawk (*Accipiter cooperii*) *
- Greater Yellowlegs (*Tringa melanoleuca*)
- Killdeer (*Charadrius vociferous*)
- Mallard (*Anas platyrhynchos*)
- Northern Rough-winged Swallow (*Stelgidopteryx serripennis*)
- Northern Harrier (foraging on hillside to the west) *
- Red-shouldered Hawk
- Red-tailed Hawk
- Solitary Sandpiper (*Tringa solitaria*) (vagrant)
- Song Sparrow (*Melospiza melodia*)
- White-tailed Kite
- White-throated Swift (*Aeronautes saxatalis*)

EXISTING CONDITIONS

- Wilson’s Snipe (*Gallinago delicata*)
- Raccoon (*Procyon lotor*) (tracks)
- Baja California tree frog (*Pseudacris hypochondriaca*)
- Funereal duskywing (*Erynnis funeralis*)

* San Diego MSCP covered species

Reach 7

Habitat value to wildlife along this reach is minimal. The reach only provides a small, narrow strip of freshwater marsh Habitat. Wildlife observed in, along, and over Reach 3 include:

- American Crow (*Corvus brachyrhynchos*)
- Anna’s Hummingbird (*Calypte anna*)
- Cassin’s Kingbird
- House Finch (*Haemorhous mexicanus*)
- Lesser Goldfinch (*Spinus psaltria*)
- Song Sparrow
- Raccoon (tracks)
- Mosquito fish (*Gambusia affinis*)

<u>Are there current levels of anthropogenic influences on habitat within the project footprint (e.g., homeless encampment, illegal dumping)?</u>	Yes	X
	No	

If yes, describe the influence: Anthropogenic influences on habitat in the maintenance areas include small amounts of trash and debris (no large dump sites were noted), noise from nearby freeway and road traffic, and man-made structures such as bridges and freeway/street overpasses that block light and inhibit plant growth in certain portions of Reach 3.

<u>Are there any conservation easements which have been previously recorded within the maintenance area?</u>	Yes	
	No	X

If yes, describe them and their purpose:
 Based on a search of the California Protected Areas Database, there are no conservation easements within the maintenance area. The nearest conservation easements are the Soledad Canyon Open Space area to the south and the Los Peñasquitos Canyon Preserve to the west. Note, Reaches 3 and 7 are not located within, but are adjacent to the City’s MHPA.

Jurisdictional Areas:

EXISTING CONDITIONS

For the Master Maintenance Program, a program-level jurisdictional delineation was conducted within subject storm water facility channels and sedimentation basins with results categorized by HUs. Mapping was conducted along segments of several major and minor water areas. State, Federal, and City jurisdictional areas within the study area consisted of Disturbed Wetland, freshwater marsh.

A site-specific formal jurisdictional delineation of “waters of the United States,” including wetlands, under the jurisdiction of the ACOE, CDFW, and RWQCB was not conducted for the proposed maintenance area. For purposes of this IBA, the proposed channel maintenance area is assumed to be within the defined limits of the concrete-lined facilities, and therefore ACOE, RWQCB, and CDFW jurisdiction are the same.

The proposed maintenance of Reaches 3 and 7 will result in impacts to 3.46 acres of jurisdictional waters of the U.S., including wetlands, as presented in Table 3 below.

Table 3. Impacts to Waters of the U.S./State by Reach

Vegetation Community	Jurisdictional Acreage (ACOE, RWQCB, CDFW, City)		Total
	Reach 3	Reach 7	
Freshwater Marsh	0.63	0.18	0.81 ¹
Developed/Concrete-lined Channel	2.65	0	2.65 ²
Total	3.28	0.18	3.46

¹ Wetland Waters of the U.S.

² Non-wetland Waters of the U.S.

Sensitive Plant Species Observed:					Sensitive Animal Species Observed/Detected:				
YES			NO	X	YES	X		NO	
If yes, what species were observed and where?					If yes, what species were observed/detected and where?				
No rare plants were detected in Reaches 3 or 7.					White-tailed Kites were observed flying over Reach 3 during the site visit. This is a CDFW fully-protected species and potential nesting habitat could occur in adjacent large trees such as pines, eucalyptus, and willows. One Cooper’s Hawk was observed perched				

EXISTING CONDITIONS					
		<p>in a tree along the bank of Reach 3. No raptor nests or signs of raptor nesting were found. Potential nesting habitat could occur in adjacent large trees such as pines, eucalyptus, and willows.</p> <p>No special status animals were observed in Reach 7.</p>			
<p><u>If yes, complete a California Native Species Field Survey Form and submit it to the California Natural Diversity Database.</u></p>		<p><u>If yes, complete a California Native Species Field Survey Form and submit it to the California Natural Diversity Database.</u></p>			
N/A		California Native Species Field Survey Forms are being prepared for submittal to the CNDDDB.			
<p><u>*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.</u></p>		<p><u>*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.</u></p>			
Is any portion of the maintenance activity within an MHPA?		YES		NO	X
<p><u>If yes, describe which portions are within an MHPA:</u></p>					
<p>Maintenance is only planned in Reaches 3 and 7 which are outside but adjacent to the City's MHPA near the confluence and within the vegetated areas west of Flintkote Avenue (Figure 1). To maintain conformance with the MMP and City's MSCP, Section 1.4.3 (Land Use Adjacency Guidelines) is also included in Attachment 2 (i.e., MSCP Conformance Review Table) and applies to portions of the project area adjacent to the MHPA.</p>					
<p>Is there moderate or high potential for listed animal species to occur in or adjacent to the impact area?</p>					
YES	X	NO			
<p><u>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:</u></p>					
X	Least Bell's Vireo			Riverside fairy shrimp	
	Southwestern Willow Flycatcher			California Least Tern	
	Arroyo toad		X	Light-footed Clapper Rail	

EXISTING CONDITIONS

	Coastal California Gnatcatcher		Western Snowy Plover
	San Diego fairy shrimp	X	Other: Nesting Birds and Raptors

Light-Footed Clapper Rail

Light-footed Clapper Rail has not historically been observed within Reaches 3 and 7; however, Reaches 3 and 7 are adjacent to potential habitat. To avoid impacts to light-footed clapper rail, maintenance within or adjacent to suitable habitat shall occur outside of the known breeding season (February 15 through August 15), unless postponing maintenance would result in a threat to human life or property (PEIR Mitigation Measure 4.3.17 and 4.3.25).

If maintenance must occur within the breeding season, protocol surveys for light-footed clapper rails will be conducted by a qualified biologist (possessing a valid Endangered Species Act Section 10(a)(1)(a) recovery permit) prior to implementation of the channel maintenance activities to determine presence. Furthermore, if evidence indicates the potential is moderate to high for light-footed clapper rails to occur on site, daily pre-maintenance surveys will be conducted by a qualified biologist to confirm that clapper rails are not present within the work area.

Least Bell’s Vireo

Reaches 3 and 7 are adjacent to Least Bell’s Vireo habitat but do not contain Southern Willow Scrub. In compliance with Master Maintenance Program PEIR Mitigation Measure 4.1.2, protocol surveys for Least Bell’s Vireo are required if maintenance is proposed during the vireo breeding season (March 15 - September 15). Least Bell’s Vireo presence in the area has already been confirmed and a protocol presence/absence survey is not necessary.

Nesting Raptors

Habitat for nesting raptors exists in the areas surrounding the maintenance sites and consists primarily of trees planted along the streets or located in immediately adjacent business parks. These areas have moderate potential to support nesting raptors such as red-shouldered hawk, red-tailed hawk, and Cooper’s hawk.

If maintenance is planned during the raptor nesting season (January 15 through August 31), pre-maintenance surveys would be necessary to identify whether nesting raptors are present and where maintenance setbacks may need to be established (PEIR Mitigation Measure 4.3.13). Pre-maintenance raptor nest searches should cover nesting habitat to the limits of the nest buffers specified in PEIR Mitigation Measure 4.3.16.

Migratory Bird Treaty Act Protected Birds

In order to avoid impacts to nesting avian species, including those species not covered by the MSCP, maintenance within or adjacent to avian nesting habitat should 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 (PEIR Mitigation Measure 4.3.25). Conducting maintenance work outside of the avian breeding season would eliminate the need for nesting

EXISTING CONDITIONS

bird surveys.

Attach documentation support 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).

Attachment 1 contains CNDDDB animal records for project quadrangle and surrounding quadrangles.

Is there moderate or high potential for listed plant species to occur in or adjacent to the impact area?

YES	<input type="checkbox"/>	NO	X	<input type="checkbox"/>
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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:

Based on a review of CNDDDB plant records for the project quadrangle (Del Mar) and current site observations, there is a low potential for sensitive plant species to occur within the maintenance area of Reaches 3 and 7.

Attach documentation support 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).

Attachment 1 contains CNDDDB plant records for the project quadrangle.

Could maintenance disrupt the integrity of an important habitat (i.e., disruption of a wildlife corridor and/or an extensive riparian woodland):

YES	<input type="checkbox"/>	NO	X	<input type="checkbox"/>
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If yes, discuss which habitat could be impacted and how:

Reach 3 connects patches of riparian scrub and riparian woodland habitat that occur northwest (upstream) and southeast (downstream) of the maintenance area. Habitat within the reach itself is of low value to wildlife being predominantly non-vegetated, concrete-lined channel with small patches of freshwater marsh. Reach 3 does not provide cover for terrestrial mammals such as bobcats and coyotes that could use the reach to cross between the riparian scrub habitat adjacent to the northwest and southeast ends of the reach. Freshwater marsh habitat within the Reach 7 has a low habitat value for freshwater marsh species due to its narrow width surrounded by development and human disturbance, and the shallow substrate and lack of cover limited by the concrete channel bottom.

EXISTING CONDITIONS

Maintenance within the confines of Reaches 3 and 7 is not expected to disrupt the integrity of the surrounding riparian habitat and may only temporarily affect terrestrial mammal use of the reaches to pass between habitats.

Could work be conducted during the avian breeding season (January 15 – August 31 without the need for pre-construction nesting surveys:

YES		NO	X	
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If yes, discuss which habitat could be impacted and how:

NOTE: PEIR Mitigation Measure 4.3.19 states: If SWD choose not to do the required surveys, then it shall be assumed that the appropriate avian species are present and all necessary protection and mitigation measures shall be required as described in Mitigation Measure 4.3.21. These mitigation measures require the need to perform pre-construction nesting surveys.

Is it anticipated that maintenance activities would generate noise in excess of 60 dB(A) hourly L_{eq} ?

YES	X	NO		
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If yes, what measures should be taken to avoid adverse impacts on avian bird breeding within or adjacent to the maintenance?

As described in the Individual Noise Assessment (INA) for this project, temporary construction noise from the use of heavy equipment would generate noise in excess of 60 dB(A) hourly L_{eq} during the maintenance period. Noise-generating maintenance activities occurring in or adjacent to mature riparian woodland habitat should be conducted outside the breeding seasons of listed birds that may have moderate to high potential to occur on site. Riparian scrub habitat occurs adjacent to the northwestern and southeastern ends of Reach 3. In addition, maintenance generating noise in excess of 60 dB(A) hourly L_{eq} within 750 feet (adjusted for pre-construction ambient noise levels) of MHPA Coastal Sage Scrub habitat would be restricted during the Coastal California Gnatcatcher breeding season (March 1 through August 15). Maintenance conducted outside the breeding/nesting season for protected avian species would not result in a significant indirect noise impact and no noise attenuation mitigation is required. According to Master Program PEIR Mitigation Measure 4.3.17, “If evidence indicates the potential is high for a listed species to be present, based on historical records or site conditions, then clearing, grubbing, or grading (inside and outside the MHPA) shall be restricted during the breeding season where development may impact the following species: Light-footed clapper rail (between February 15 and August 15).”

According to Master Program PEIR Mitigation Measure 4.3.20, “If no surveys are completed and no sound attenuation devices are installed, it will be assumed that the habitat in question is occupied by the appropriate species and that maintenance activities would generate more than 60 dB(A) hourly L_{eq} within the habitat requiring protection. All such activities shall cease for

EXISTING CONDITIONS

the duration of the breeding season of the appropriate species and a qualified biologist shall establish a limit of work.”

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 jurisdictional delineation work for the PEIR was conducted in late winter and early spring of 2007 and 2008. Based on 2012 aerial photographs, the distribution of established habitats such as Southern Willow Scrub appeared to be relatively stable and similar to those described in PEIR Appendix D.; however, herbaceous and unvegetated areas appeared to have undergone shifts in habitat distribution since the original PEIR surveys.

The changing distributions of freshwater marsh, Non-Vegetated Channel, and Open Water habitats may be due to changing sediment accumulation patterns, seasonal plant growth, 2011 emergency maintenance work, and water level differences at the time of mapping. Areas of Reach 7 that were classified as freshwater marsh that are now Non-Vegetated Channel may have been cleared out during the 2011 emergency maintenance work in this channel. Areas classified as Disturbed Wetland may have recovered from original disturbances between when surveys were conducted for the PEIR in 2007-2008.

According to the PEIR Biological Report, areas mapped as Open Water either supports perennial surface flows or were inundated at the time of mapping. Sediment may have accumulated in Open Water and Non-Vegetated Channel areas along the concrete-lined segments, allowing growth of vegetation. Conversely, a large storm event could clear out sediment and cause the loss of freshwater marsh vegetation along concrete-lined segments. Concrete-lined segments lacking vegetation or with herbaceous growth were most likely to undergo changes in habitat type.

MAINTENANCE IMPACTS				
Maintenance Methodology (based on IMP)				
See Attachment 3 – IMP Maintenance Methodology Table.				
Vegetation/ Land Cover Impacts:				0.84 acre
Vegetated Wetland (all freshwater marsh):				0.81 acre
Vegetated Upland (all non-native vegetation/ornamental):				0.04 acre
Jurisdictional Areas: U.S. Army Corps of Engineers, Regional Water Quality Control Board, California Department of Fish and Wildlife, City				
Wetland Waters of the U.S. (WUS):				0.81 acre
Non-wetland WUS:				2.65 acres
Other Jurisdictional Areas: California Department of Fish and Wildlife only				
Wetlands:				0.0 acre
Concrete Streambed/Unvegetated Waters:				2.65 acres
Other Jurisdictional Areas: None.				
Stream Associated Riparian Vegetation:				0.0 acre
Is there moderate or high potential for listed animal species to be impacted?			YES	<input checked="" type="checkbox"/> NO <input type="checkbox"/>
If yes, which species (check all that apply):				
<input checked="" type="checkbox"/>	Least Bell's vireo	<input type="checkbox"/>	Riverside fairy shrimp	
<input type="checkbox"/>	Southwestern willow flycatcher	<input type="checkbox"/>	California least tern	
<input type="checkbox"/>	Arroyo toad	<input checked="" type="checkbox"/>	Light-footed clapper rail	
<input type="checkbox"/>	Coastal California gnatcatcher	<input type="checkbox"/>	Western snowy plover	
<input type="checkbox"/>	San Diego fairy shrimp	<input checked="" type="checkbox"/>	Other:	Nesting Birds and Raptors
Implementation of applicable Mitigation Measures 4.1-1 through 4.1-8, and 4.3.15 through 4.3.25 would reduce the potential direct and indirect impacts to sensitive species to below a level of significance. These are listed in the Applicable PEIR Mitigation Measures section below.				

MAINTENANCE IMPACTS

Light-Footed Clapper Rail

With implementation of the mitigation measures in the USFWS Informal Section 7 Consultation for the Sorrento Creek Channel Maintenance Project, Light-footed Clapper Rails would not be impacted by maintenance activities. To comply with the USFWS Informal Section 7 Consultation and avoid impacts to this species, channel maintenance, where it could affect clapper rails, should be performed outside of the Light-Footed Clapper Rail breeding season of March 15 - September 15. Reaches 3 and 7 do not contain potential habitat for clapper rails; however, due to their adjacency to clapper rail habitat, maintenance may need to be conducted outside of the breeding season to avoid potential noise impacts. Additional mitigation measures are available in the Informal Section 7 Consultation.

Least Bell's Vireo

In accordance with PEIR Mitigation Measure 4.1.4, conducting maintenance outside of the Least Bell's vireo breeding season (March 15 and September 15) would avoid impacts to this species. This mitigation measure applies to Reaches 1, 2, 4, and 6 due to the presence of potential vireo habitat, and may also apply to Reaches 7 and 3 due to the presence of vireo habitat within the noise impact buffers of these reaches, depending on the results of the Individual Noise Assessment.

Nesting Raptors

Impacts to nesting raptors would be avoided by conducting maintenance outside of the raptor breeding season (January 15 through August 31) or, if maintenance is planned during the raptor nesting season, pre-maintenance surveys would be conducted and maintenance setback buffers established around active nests in accordance with PEIR Mitigation Measure 4.3.13.

Nesting Birds Protected Under the Migratory Bird Treaty Act

Impacts to nesting birds, including those species not covered by the MSCP, would be avoided by conducting maintenance outside of the avian breeding season (January 15 to August 31) in areas within or adjacent to avian nesting habitat in accordance with PEIR Mitigation Measure 4.3.25. In accordance with PEIR Mitigation Measure 4.3.25, when postponing maintenance to avoid the avian breeding season would result in a threat to human life or property, maintenance could be conducted during the avian breeding season. To avoid impacts to nesting birds during the breeding season, pre-maintenance surveys would be conducted and active nests avoided with a buffer determined by the biological monitor until the young have fledged or nests have failed.

MITIGATION

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

MITIGATION

Bio-1 Restrict vehicles to access designated in the master program plan.

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 Individual Biology Assessment (IBA), Individual Hydrology and Hydraulic Assessment (IHHA) and/or Individual Maintenance Plan (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, SWD shall contact the appropriate wildlife agencies and additional environmental review under CEQA will be required.

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 offsite. After the initial treatment, the area of removal shall be inspected on a quarterly basis for up two years, or until no resprouting is observed during an inspection. If resprouting is observed, the cut and paint method shall be applied to all resprouts.

MITIGATION

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.

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, 4.3.13, 4.3.14, 4.3.15, 4.3.16, 4.3.17, 4.3.18, 4.3.19, 4.3.20, 4.3.21, 4.3.22, 4.3.24, 4.3.25*;

Land Use 4.1.1, 4.1.2, 4.1.3, 4.1.4, 4.1.5, 4.1.6, 4.1.7, and 4.1.8.

*but may occur between January 15 and March 15 if 4.3.21, 4.1.2, 4.1.3, 4.1.4, 4.1.5, and 4.1.8 are followed

Applicable PEIR Mitigation Measures have been included in entirety in Attachment 4.

Other mitigation measures:

Additional mitigation measures and conditions apply from the following sources:

1. United States Fish and Wildlife Service Informal Section 7 Consultation for the Sorrento Creek Channel Maintenance Project, City of San Diego, California (August 10, 2012)
2. California Department of Fish and Wildlife Streambed Alteration Agreement
3. California Coastal Commission Coastal Development Permit and Amendment, #A-6-NOC-11-086 (San Diego Master Storm Water Maintenance Program)
4. California Regional Water Quality Control Board, San Diego Region, Section 401 Water Quality Certification and Waiver of Waste Discharge Requirements for Discharge of Dredged and/or Fill Materials for Soledad/Flintkote Channel Maintenance.

These additional measures are provided as an Attachment to the IMP.

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):

The proposed maintenance will impact a subset of those areas impacted during emergency maintenance in 2011. The 2011 impact acreages total 1.91 acre of freshwater marsh, disturbed wetland, southern willow scrub, and riparian scrub within Reaches 3 and 7 (Table 4). The proposed ~~2013~~ maintenance impact acreage within Reaches 3 and 7 includes 0.03 acre of upland habitat (non-native vegetation/ornamental) (Table 2); and 3.46 acre of jurisdictional wetland ~~vegetation area consisting of~~ (0.81 acre of freshwater marsh); and 2.65 acres of developed/concrete-lined channel (Table 3). Upland habitat will not require mitigation per City Guidelines as it is Tier IV habitat (non-native vegetation/ornamental). ~~The nature of a Non-vegetated developed/concrete-lined channels are considered developed areas will not be changed by maintenance and these areas will~~ do not require mitigation. Accordingly, the 1.91

MITIGATION

acres of mitigation that is being implemented for this channel covers the 3.46 acres of jurisdictional impact area included for this repeat maintenance (see Figure 3). Note, the 2011 emergency maintenance impacted approximately 1.91 acres of vegetated wetland areas consisting of freshwater marsh, disturbed wetland, southern willow scrub, and riparian habitats; whereas the proposed maintenance would only impact 0.81 acres of vegetated wetland areas consisting of emergent freshwater marsh. The remaining acreage has remained in its maintained condition qualified as developed/concrete channel.

For the purposes of this mitigation discussion, it should be noted that the ACOE, RWQCB, CDFW do not require mitigation for any impacts to the concrete-lined section of the proposed maintenance area (i.e., Reach 3 and Reach 7). However, the 2012 Coastal Development Permit (California Coastal Commission 2012) states that “all wetland impacts shall be mitigated at a ratio of 1:1 for temporary impacts, 2:1 for Natural flood channels, 3:1 for impacts to Riparian habitat, and 4:1 for impacts to Freshwater Marsh and Disturbed wetland”. The California Coastal Commission requirement for mitigation of “all wetland impacts” is interpreted to include impacts to wetland vegetation within concrete-lined channels. Non-vegetated concrete-lined channel areas do not require mitigation.

Mitigation planned for this channel is consistent with the programmatic approach of one-time mitigation for channels with repeated maintenance activities. The mitigation program for this channel is described below.

**Table 4. Mitigation Proposed for Sorrento Valley Maintenance
Area Impacts**

Maintenance Area	2011 Impact Acreage ¹	Mitigation Ratio	Mitigation		
			Creation	Enhancement	Total
IMPACTS PENDING MITIGATION					
Flintkote (concrete)					
Freshwater Marsh	0.06	4:1	0.06	0.18	0.24
Soledad (concrete)					
Freshwater Marsh	1.15	4:1	1.15	3.45	4.60
Disturbed Wetland	0.50	4:1	0.50	1.50	2.00
Southern Willow Scrub	0.04	3:1	0.04	0.08	0.12
Riparian Scrub	0.16	3:1	0.16	0.32	0.48
subtotal	1.85	--	1.95	5.25	7.20
Total	1.91	--	1.91	5.53	7.44

MITIGATION

Proposed mitigation at El Cuervo al Oeste or El Cuervo del Sur:	3-3.71	0	3-3.71
Proposed mitigation at Lopez Canyon Preserve:	0	6.25	6.25
PREVIOUSLY MITIGATED IMPACTS			
Soledad (earthen) (The El Cuervo Wetland Mitigation Site includes mitigation for the entire earthen portion of Soledad Creek)	7.27	4.80	12.07
[†] Total mitigation acreage is based on 2011 emergency maintenance impacts. Subsequent or repeat maintenance does not require additional mitigation if conducted within the same geographic footprint, as long as no new sensitive species have been identified that would require new mitigation.			

<u>Maintenance Area</u>	<u>2011 Impact Acreage¹</u>	<u>Mitigation Ratio²</u>	<u>Mitigation</u>		
			<u>Creation</u>	<u>Enhancement</u>	<u>Total</u>
IMPACTS PENDINGREQUIRING MITIGATION					
Flintkote (concrete) – Reach 7					
Freshwater Marsh	0.06	4:1	0.06	0.18	0.24
Soledad (concrete) – Reach 3					
Freshwater Marsh	1.15	4:1	1.15	3.45	4.60
Disturbed Wetland	0.50	4:1	0.50	1.50	2.00
Southern Willow Scrub	0.04	3:1	0.04	0.08	0.12
Riparian Scrub	0.16	3:1	0.16	0.32	0.48
subtotal	1.85	--	1.85	5.35	7.20
Total	1.91	--	1.91	5.53	7.44
Proposed mitigation at Los Penasquitos wetlands creation area (El Cuervo del Sur):			1.91	0	1.91
Proposed mitigation at Los Penasquitos Enhancement Project Site:			0	5.53	5.53
PREVIOUSLY MITIGATED IMPACTS					
Soledad Creek (earthen) – portion of Reach 2	0.67	Mitigation: Earthen portions of Soledad Creek (including the portion of Reach 2 impacted by this emergency) have been mitigated at the El Cuervo Wetlands Mitigation Site.			

MITIGATION

¹ Total mitigation acreage is based on 2011 emergency maintenance impacts. Subsequent or repeat maintenance does not require additional mitigation if conducted within the same geographic footprint, as long as no new sensitive species have been identified that would require new mitigation.

² Ratios identified are taken from the most restrictive of the program requirements (City of San Diego amended Site Development Permit).

Maintenance would not change the vegetation classification of areas mapped as developed or disturbed/ruderal habitat; therefore, no off-site mitigation would be required for these areas.

Mitigation as required by the various regulatory agencies/permits is summarized below. Please note that the information represents the requirements for the first maintenance activity, not the repeat maintenance that is proposed in this IBA (i.e., the 2011 impacts as noted in Table 4). This mitigation is representative of the geographical footprint that is being maintained for a second time under the MMP. See Attachment 6.

ACOE/RWQCB/CDFW Jurisdictional Wetlands:

As indicated in Table 3, approximately 3.46 acres of freshwater marsh and developed concrete/channel would be impacted by the proposed maintenance. Since the area is entirely within the same geographic footprint as the previous 2011 emergency (Table 4) and is concrete lined, no new mitigation is required by ACOE and CDFW for repeat maintenance. However, RWQCB has indicated that it will require 1:1 enhancement for 0.69 acre of good quality fresh water marsh (concrete lined) to compensate for the temporal loss of water quality functions.

~~As all of the 1.91 acres of impacts occurs as freshwater marsh on concrete-lined channels, no mitigation is required under ACOE, RWQCB, and CDFW regulations.~~

CDFW-only Jurisdictional Wetlands:

~~There are no CDFW-only jurisdictional wetlands present.~~

City/CCC-only Jurisdictional Wetlands:

Table 3 shows that approximately 3.46 acres of freshwater marsh and developed/concrete channel would be impacted by the proposed maintenance. However, since this area is entirely within the same geographic footprint as the previous 2011 emergency (Table 4) no new mitigation is required for repeat maintenance. For the 2011 emergency, mitigation is proposed ~~The proposed maintenance will require mitigation~~ to compensate for approximately 1.91 acres of impacts to areas regulated under the City jurisdiction only (i.e., freshwater marsh on concrete channel) in accordance with the modified Site Development Permit and Coastal Development Permit (see Table 4). ~~Mitigation for proposed maintenance impacts to freshwater marsh (all forms) is required at a 4:1 ratio as presented in Table 4 above.~~

MITIGATION

Mitigation Description/Location:

Mitigation is proposed at two sites to achieve one part of the 4:1 required ratio as wetlands creation/restoration and the remaining portions as wetland enhancement. See El Cuervo (del Sur ~~or al Oeste~~) Wetland Habitat Mitigation and Monitoring Plan (URS 2013a) and the Los Peñasquitos Canyon Preserve Conceptual Wetland Enhancement Plan (URS 2013b) for more details regarding specifics of these sites.

ADDITIONAL COMMENTS OR RECOMMENDATIONS

Individual Biological Assessment Report Attachments:

Attachment 1: CNDDDB RareFind4 Records Search of Del Mar Quadrangle

Attachment 2: MSCP Conformance Review Table

Attachment 3: IMP Maintenance Methodology Table.

Attachment 4: Applicable PEIR Mitigation Measures

Attachment 5: Plant Species List

Attachment 6: Maintenance Area Comparison Figure (Previously Mitigated, 2011 Emergency Areas, and Proposed Work)

References:

Army Corps of Engineers. Master Army Corps of Engineers (ACOE) Permit SPL-2009-00719-RS

California Coastal Commission. 2012. Coastal Development Permit No. A-6-NOC-11-086 (November 29, 2012);

California Department of Fish and Wildlife. 2006. Streambed Alteration Agreement #1600-2006-0183-R5. October 31, 2006.

California Regional Water Quality Control Board, San Diego Region. 2012. Amendment to Clean Water Act Section 401 Water Quality Certification No. 06C-062 for the Sorrento Creek Channel Maintenance Project. May 31, 2012.

California Regional Water Quality Control Board, San Diego Region. 2006. Section 401 Water Quality Certification and Waiver of Waste Discharge Requirements for Discharge of Dredged and/or Fill Materials for the Sorrento Creek Channel Maintenance Project (File No. 06C-062), June 14, 2006.

City of San Diego. 1997. Multiple Species Conservation Program City of San Diego MSCP Subarea Plan. San Diego, California: March 1997.

ADDITIONAL COMMENTS OR RECOMMENDATIONS

- City of San Diego. 2000. San Diego Municipal Code Land Development Code Biology Guidelines. San Diego, California: June 2000.
- City of San Diego. 2002. Guidelines for Conducting Biological Surveys. San Diego, California: October 1998, revised July 2002.
- City of San Diego. 2011a. Master Storm Water Maintenance Program. San Diego, California: October 2011
- City of San Diego. 2011b. Final Recirculated Master Storm Water System Maintenance Program PEIR. San Diego, California: October 2011.
- Dudek. 2012. Summary Regulatory Evaluation for Three Priority Coastal Zone Channel Maintenance Areas – Sorrento Valley, Tijuana River Valley, and Mission Bay, July 20.
- Holland, R.F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. California Department of Fish and Game, Sacramento, California.
- Oberbauer 2006. Terrestrial Vegetation Communities of San Diego County Based on Holland's Descriptions. San Diego, California: February 2006.
- ~~URS Corporation. 2012. Potential Mitigation Sites in the Los Peñasquitos Watershed within the Coastal Zone for the Master Storm Water System Maintenance Program (Master Maintenance Program).~~
- ~~URS Corporation. 2013a. El Cuervo (del Sur or al Oeste) Conceptual Wetland Habitat Mitigation and Monitoring Plan. May 2013.~~
- URS Corporation. 2013a~~b~~. Los Peñasquitos Canyon Preserve Conceptual Wetland Enhancement Plan. ~~May~~ July 2013.
- URS Corporation. 2013b~~e~~. El Cuervo Del Sur Conceptual Wetland Habitat Mitigation and Monitoring Plan. July 2013.

Site Photos – Reach 1 (Sorrento Creek)



PHOTO 1 NOTES:
Southeastern segment of maintenance area facing northwest.



PHOTO 2 NOTES:
Southeastern segment of maintenance area facing east/upstream towards Penasquitos Creek.



PHOTO 3 NOTES:
Middle portion of Reach 1 maintenance area facing east.



PHOTO 4 NOTES:
Staging area.



PHOTO 5 NOTES:
Staging area.



PHOTO 6 NOTES:
Northwest end of Reach 1 facing northwest.

Site Photos – Reach 2 (Soledad Creek, earthen-bottomed segment)



PHOTO 1 NOTES:
Southeast end of Reach 2 facing east.



PHOTO 2 NOTES:
Trail along northwest bank of Reach 2.



PHOTO 3 NOTES:
Reach 2 from northwestern end facing southeast (upstream).



PHOTO 4 NOTES:
Southeast end of Reach 2 facing northwest.



PHOTO 5 NOTES:
Channel bank facing west (upsloap)



PHOTO 6 NOTES:
Southeast end of reach 2 at access ramp facing northwest.

Site Photos – Reach 3 (Soledad Creek, concrete-lined segment)



PHOTO 1 NOTES:

Northwest end of Reach 3 facing southwest from access ramp.



PHOTO 2 NOTES:

Below freeway overpasses facing northeast.



PHOTO 3 NOTES:

Freeway overpass area facing southeast.



PHOTO 4 NOTES:

Southeast of freeway overpasses facing northwest.



PHOTO 5 NOTES:

Southeast of freeway overpasses facing southeast.



PHOTO 6 NOTES:

Middle segment of Reach 3 facing southeast.

Site Photos – Reach 3 (Soledad Creek, concrete-lined segment)



PHOTO 7 NOTES:

Southeast of middle segment of Reach 3 facing northwest.



PHOTO 8 NOTES:

Southeast of middle segment of Reach 3 facing southeast.



PHOTO 9 NOTES:

Near southeast end of Reach 3 facing southeast.



PHOTO 10 NOTES:

At southeast end of Reach 3 showing habitat adjacent to the maintenance area, facing southeast.

Site Photos – Reach 7 (Flintkote)



PHOTO 1 NOTES:
Northeast end facing southwest (upstream).



PHOTO 2 NOTES:
Culverted road crossing.



PHOTO 3 NOTES:
From culverted facing southwest.



PHOTO 4 NOTES:
Southwest end of Reach 7 facing south.

Site Photos – Reach 8 (Dunhill Street earthen channel)

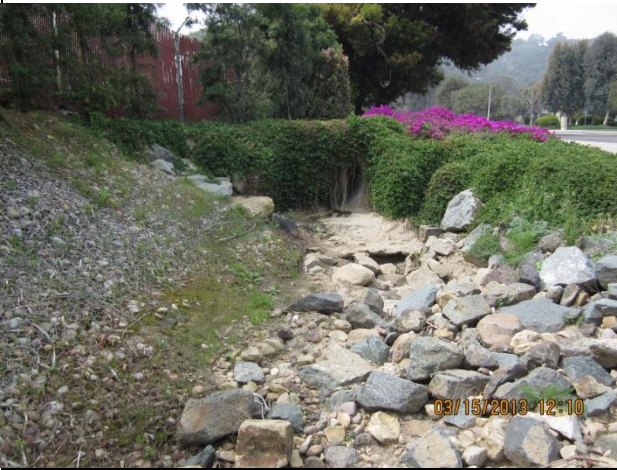


PHOTO 1 NOTES:
Near southwestern end facing southwest.



PHOTO 2 NOTES:
Southwestern end facing northeast.



PHOTO 3 NOTES:
South bank.



PHOTO 4 NOTES:
North bank.

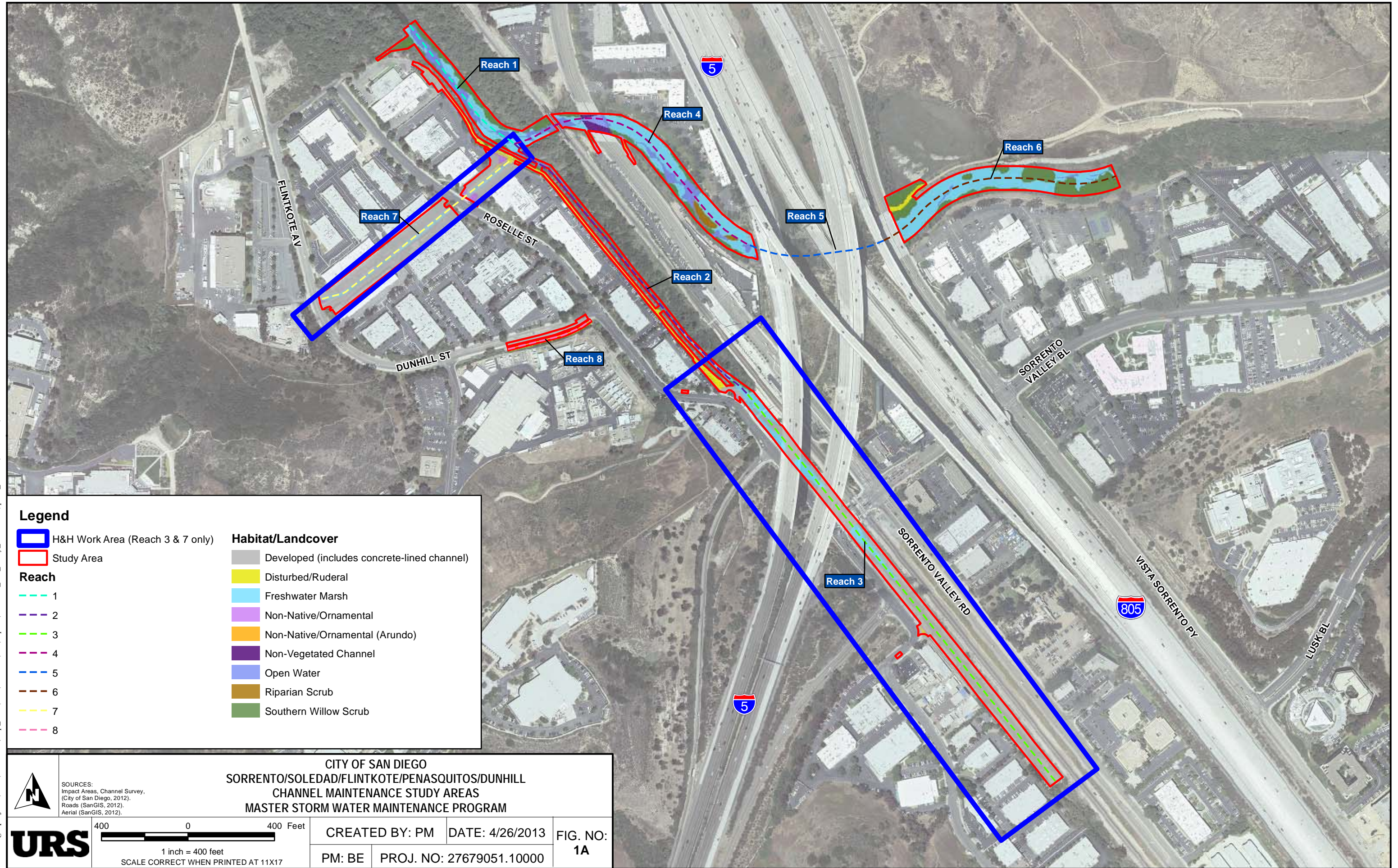


PHOTO 5 NOTES:
Near northwestern end facing southeast.



PHOTO 6 NOTES:
Northwestern end facing northwest.

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Legend

H&H Work Area (Reach 3 & 7 only)
 H&H Work Area (Reach 3 & 7 only)
 Study Area

Reach

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

Habitat/Landcover

- Developed (includes concrete-lined channel)
- Disturbed/Ruderal
- Freshwater Marsh
- Non-Native/Ornamental
- Non-Native/Ornamental (Arundo)
- Non-Vegetated Channel
- Open Water
- Riparian Scrub
- Southern Willow Scrub

CITY OF SAN DIEGO
SORRENTO/SOLEDAD/FLINTKOTE/PENASQUITOS/DUNHILL
CHANNEL MAINTENANCE STUDY AREAS
MASTER STORM WATER MAINTENANCE PROGRAM

SOURCES:
 Impact Areas, Channel Survey, (City of San Diego, 2012).
 Roads (SanGIS, 2012).
 Aerial (SanGIS, 2012).

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Habitat/Landcover

- Developed (includes concrete-lined channel)
- Disturbed/Ruderal
- Freshwater Marsh
- Non-Native/Ornamental
- Southern Willow Scrub
- Maintenance Area
- Access Area
- Staging Area
- Multiple Habitat Planning Area (MHPA)

USFWS Species Point

- Least Bell's Vireo (*Vireo bellii pusillus*)

URS March 2013 Field Visit Points

- San Diego Sagewort (*Artemisia palmeri*)

**CITY OF SAN DIEGO
BIOLOGICAL RESOURCES
SOLEDAD CREEK CHANNEL (REACH 3) MAINTENANCE IMPACT AREA
MASTER STORM WATER MAINTENANCE PROGRAM**

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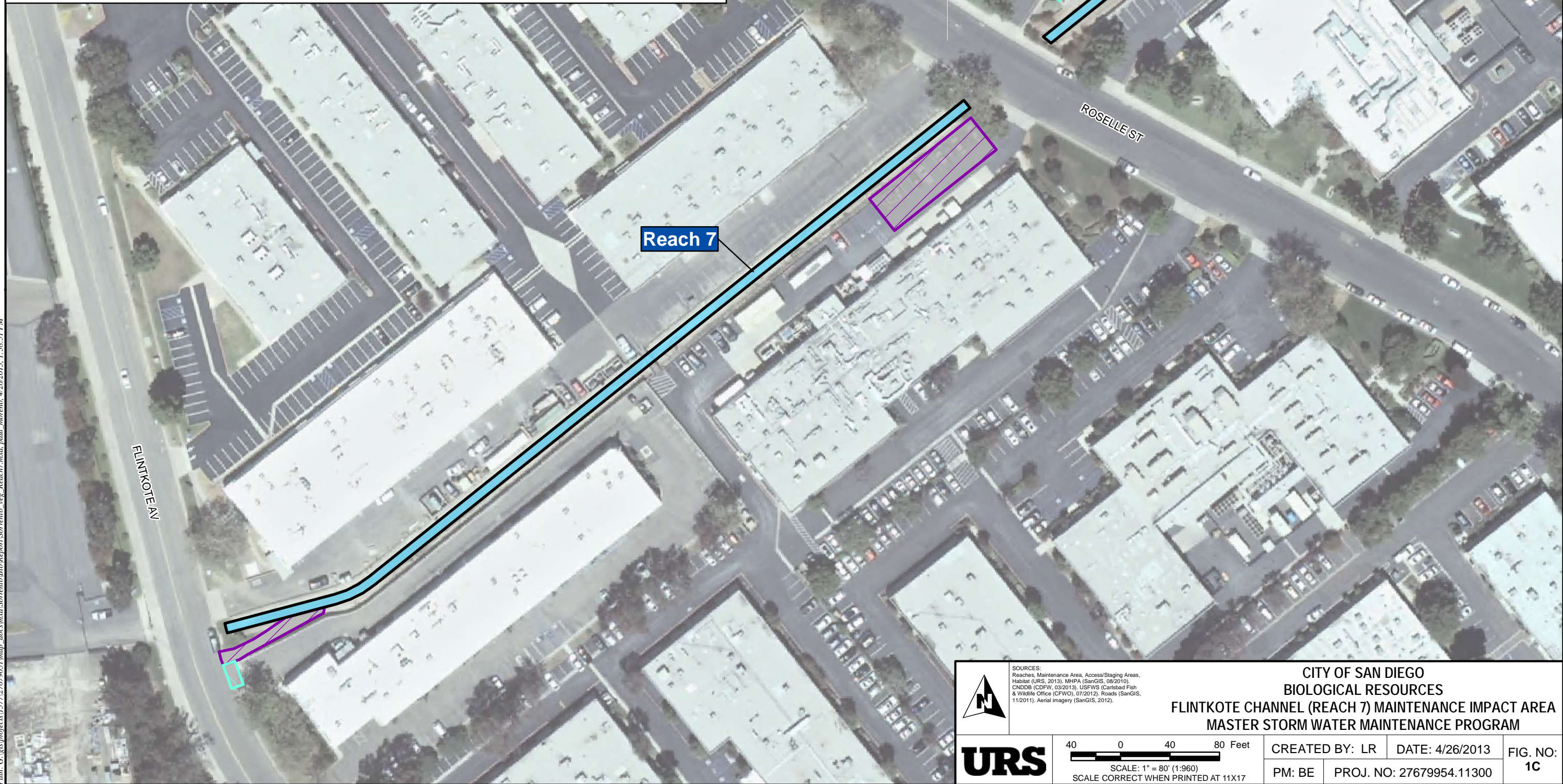
SOURCES:
Reaches, Maintenance Area, Access/Staging Areas,
Habitat (URS, 2013), MHPA (SanGIS, 08/2010),
CNDDB (CDFW, 03/2013), USFWS (Charisad Fish
& Wildlife Office (CFWO), 07/2012), Roads (SanGIS,
11/2011), Aerial Imagery (SanGIS, 2012).

Habitat/Landcover

- Developed (includes concrete-lined channel)
- Disturbed/Ruderal
- Freshwater Marsh
- Non-Native/Ornamental

- Maintenance Area
- Access Area
- Staging Area
- Multiple Habitat Planning Area (MHPA)

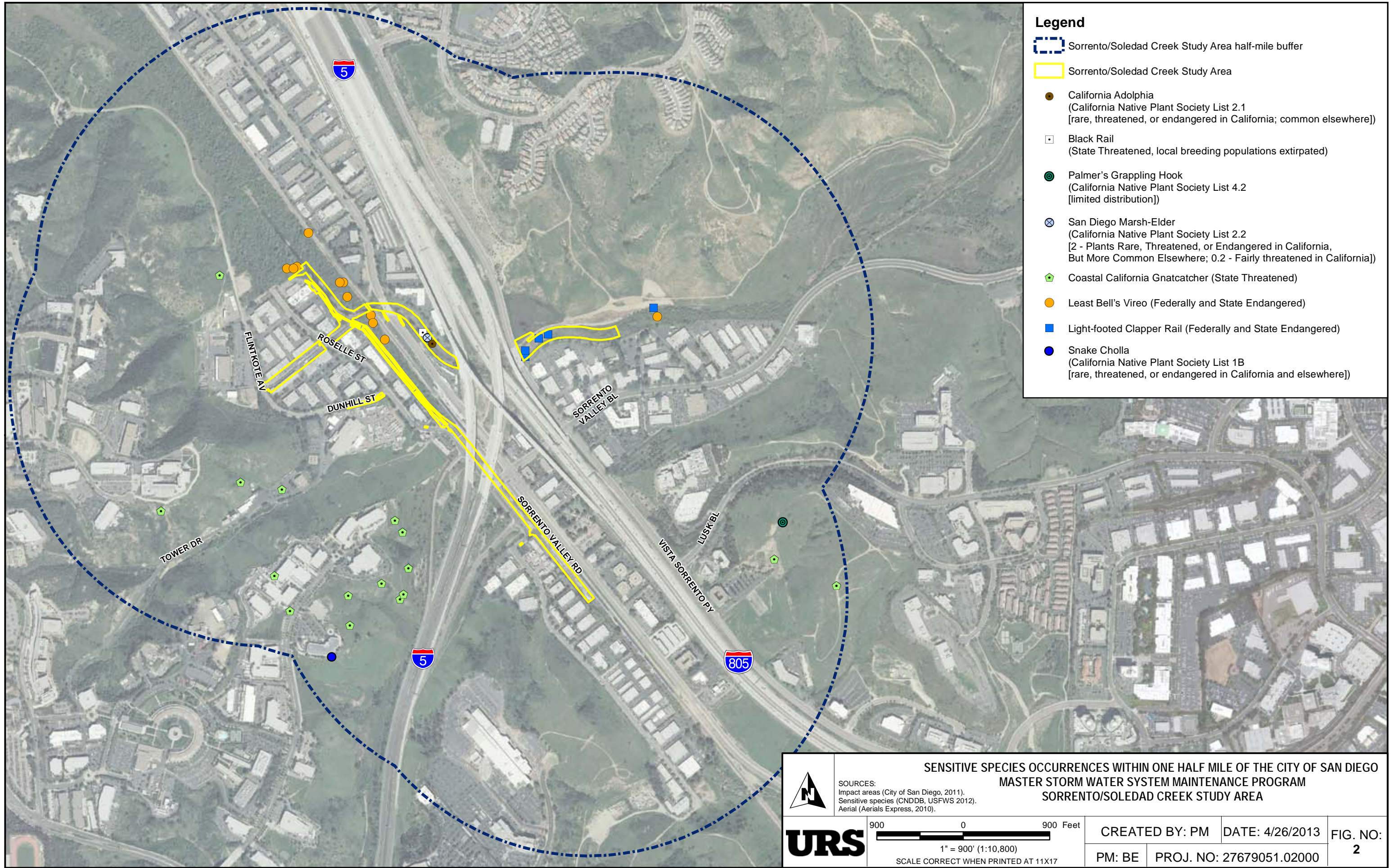
- URS March 2013 Field Visit Points
- San Diego Sagewort (*Artemisia palmeri*)



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 	SOURCES: Reaches, Maintenance Area, Access/Staging Areas, Habitat (URS, 2013), MHPA (SanGIS, 08/2010), CNDDB (CDFW, 03/2013), USFWS (Carlsbad Fish & Wildlife Office (CFWO), 07/2012), Roads (SanGIS, 11/2011), Aerial Imagery (SanGIS, 2012).		CITY OF SAN DIEGO BIOLOGICAL RESOURCES FLINKKOTE CHANNEL (REACH 7) MAINTENANCE IMPACT AREA MASTER STORM WATER MAINTENANCE PROGRAM	
	40 0 40 80 Feet SCALE: 1" = 80' (1:960) SCALE CORRECT WHEN PRINTED AT 11X17	CREATED BY: LR PM: BE	DATE: 4/26/2013 PROJ. NO: 27679954.11300	FIG. NO: 1C

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Legend

- Sorrento/Soledad Creek Study Area half-mile buffer
- Sorrento/Soledad Creek Study Area
- California Adolphia
(California Native Plant Society List 2.1
[rare, threatened, or endangered in California; common elsewhere])
- Black Rail
(State Threatened, local breeding populations extirpated)
- Palmer's Grappling Hook
(California Native Plant Society List 4.2
[limited distribution])
- San Diego Marsh-Elder
(California Native Plant Society List 2.2
[2 - Plants Rare, Threatened, or Endangered in California,
But More Common Elsewhere; 0.2 - Fairly threatened in California])
- ◆ Coastal California Gnatcatcher (State Threatened)
- Least Bell's Vireo (Federally and State Endangered)
- Light-footed Clapper Rail (Federally and State Endangered)
- Snake Cholla
(California Native Plant Society List 1B
[rare, threatened, or endangered in California and elsewhere])



URS

**SENSITIVE SPECIES OCCURRENCES WITHIN ONE HALF MILE OF THE CITY OF SAN DIEGO
MASTER STORM WATER SYSTEM MAINTENANCE PROGRAM
SORRENTO/SOLEDAD CREEK STUDY AREA**

SOURCES:
Impact areas (City of San Diego, 2011).
Sensitive species (CNDDB, USFWS 2012).
Aerial (Aerials Express, 2010).

CREATED BY: PM DATE: 4/26/2013 FIG. NO: 2

PM: BE PROJ. NO: 27679051.02000





900 0 900 Feet


1" = 900' (1:10,800)

SCALE CORRECT WHEN PRINTED AT 11X17

Path: G:\gis\projects\15772767905\map_docs\maxd\Sorrento\Bio\Report\Comparison_2011EMA_and_PMA.mxd, lauren_rizzo, 6/13/2013, 4:03:50 PM



-  2011 Emergency Maintenance Area
-  Proposed Maintenance Area
-  Proposed Maintenance Area Access
-  Proposed Maintenance Area Staging

 SOURCES:
EMA, PMA, Access, Staging
(City of San Diego, 2012).
Roads (SanGIS, 2012). Aerial
(SanGIS, 2012).

URS

130 0 130 260 Feet
SCALE: 1" = 260' (1:3,120)
SCALE CORRECT WHEN PRINTED AT 11X17

**COMPARISON OF 2011 EMERGENCY MAINTENANCE AREA
AND PROPOSED MAINTENANCE AREA
SORRENTO CREEK/FLINTKOTE/SOLEDAD CHANNEL
MASTER STORM WATER MAINTENANCE PROGRAM
CITY OF SAN DIEGO**

CREATED BY: PM	DATE: 6/13/2013	FIG. NO: 3
PM: BE	PROJ. NO: 27679954.11300	



Summary Table Report

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California Natural Diversity Database



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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extrap.
<i>Acanthomintha illicifolia</i> San Diego thorn-mint	G2 S2	Threatened Endangered	Rare Plant Rank - 1B.1 USFS_S-Sensitive	90 430	82 S:4	0	0	1	0	2	1	2	2	1	1
<i>Adolphia californica</i> California adolphia	G3G4 S2	None None	Rare Plant Rank - 2.1	150 600	84 S:15	0	2	1	0	0	12	10	5	0	0
<i>Agave shawii</i> var. <i>shawii</i> Shaw's agave	G2G3T2T3 S1	None None	Rare Plant Rank - 2.1	240 240	4 S:1	0	0	0	0	0	1	1	0	0	0
<i>Aimophila ruficeps canescens</i> southern California rufous-crowned sparrow	G5T2T4 S2S3	None None	CDFW_WL-Watch List	200 360	185 S:4	0	1	0	1	0	2	1	3	4	0
<i>Ambrosia pumila</i> San Diego ambrosia	G1 S1	Endangered None	Rare Plant Rank - 1B.1	200 260	55 S:2	0	0	2	0	0	0	0	2	2	0
<i>Amphispiza belli belli</i> Bell's sage sparrow	G5T2T4 S2?	None None	ABC_WLBCC-Watch List of Birds of Conservation Concern CDFW_WL-Watch List USFWS_BCC-Birds of Conservation Concern	250 380	57 S:2	0	0	0	0	0	2	0	2	2	0
<i>Aphanisma bitoides</i> aphanisma	G3G4 S3	None None	Rare Plant Rank - 1B.2	260 350	67 S:4	0	1	0	0	0	3	3	1	4	0
<i>Arctostaphylos glandulosa</i> ssp. <i>crassifolia</i> Del Mar manzanita	G5T2 S2	Endangered None	Rare Plant Rank - 1B.1	100 400	45 S:14	2	0	2	2	0	8	8	6	14	0
<i>Artemisia palmeri</i> San Diego sagewort	G3 S3.2	None None	Rare Plant Rank - 4.2	50 300	36 S:6	0	3	0	0	0	3	4	2	6	0
<i>Aspidoscelis hyperythra</i> orangethroat whiptail	G5 S2	None None	CDFW_SSC-Species of Special Concern IUCN LC-Least Concern	40 390	346 S:11	1	1	1	1	0	7	4	7	11	0
<i>Aspidoscelis tigris stejnegeri</i> coastal whiptail	G5T3T4 S2S3	None None		300 360	112 S:3	0	0	1	0	0	2	0	3	3	0
<i>Astragalus tener</i> var. <i>titi</i> coastal dunes milk-vetch	G1T1 S1	Endangered Endangered	Rare Plant Rank - 1B.1	100 100	6 S:1	0	0	0	0	0	1	1	0	1	0



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<i>Athene cucularia</i> burrowing owl	G4 S2	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	300 300	1827 S:1	0	0	1	0	0	0	0	0	0	0	1	0	0
<i>Atriplex pacifica</i> south coast saltscall	G3G4 S2	None None	Rare Plant Rank - 1B.2	280 280	77 S:1	0	0	0	0	0	1	0	0	0	1	0	0	0
<i>Baccharis vanessae</i> Encinitas baccharis	G1 S1	Threatened Endangered	Rare Plant Rank - 1B.1 USFS_S-Sensitive	140 400	25 S:4	0	0	0	0	2	2	3	1	0	2	0	0	2
<i>Berberis nevinii</i> Nevin's barberry	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 USFS_S-Sensitive	328 328	34 S:1	0	0	0	0	0	1	0	0	0	1	0	0	0
<i>Bergocactus emoryi</i> golden-spined cactus	G2G3 S2.1	None None	Rare Plant Rank - 2.2	250 250	70 S:2	0	0	0	0	0	2	2	0	0	2	0	0	0
<i>Bloomeria clevelandii</i> San Diego goldenstar	G2 S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive	380 440	68 S:3	0	0	0	1	0	2	3	0	0	3	0	0	0
<i>Branchinecta sandiegonensis</i> San Diego fairy shrimp	G1 S1	Endangered None	IUCN_EN-Endangered	360 415	67 S:8	0	2	2	0	0	4	1	7	0	8	0	0	0
<i>Brodiaea orcuttii</i> Orcutt's brodiaea	G1 S1	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive USFS_S-Sensitive	360 480	105 S:14	0	1	0	4	4	5	12	2	0	10	3	0	1
<i>Ceanothus cyaneus</i> Lakeside ceanothus	G2 S2.2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive USFS_S-Sensitive	350 360	26 S:2	0	0	0	0	0	2	2	0	0	2	0	0	0
<i>Ceanothus verrucosus</i> wart-stemmed ceanothus	G3 S2.2	None None	Rare Plant Rank - 2.2	250 400	44 S:10	0	3	4	0	0	3	4	6	0	10	0	0	0
<i>Centromadia parryi</i> ssp. <i>australis</i> southern tarplant	G4T2 S2	None None	Rare Plant Rank - 1B.1	15 40	78 S:3	1	0	0	0	0	2	1	2	0	3	0	0	0
<i>Chaenactis glabruscula</i> var. <i>orcuttiana</i> Orcutt's pincushion	G5T1 S1	None None	Rare Plant Rank - 1B.1	70 200	23 S:4	0	0	0	0	2	2	3	1	0	2	2	0	0
<i>Chaetodipus fallax fallax</i> northwestern San Diego pocket mouse	G5T3 S2S3	None None	CDFW_SSC-Species of Special Concern	25 80	94 S:2	1	1	0	0	0	0	0	2	0	2	0	0	0



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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Charadrius alexandrinus nivosus</i> western snowy plover	G4T3 S2	Threatened None	ABC_WLBCC-Watch List of Birds of Conservation Concern CDFW_SSC-Species of Special Concern USFWS_BCC-Birds of Conservation Concern	5 5	120 S:2	0	0	0	0	1	1	2	0	1	1	0
<i>Chorizanthe orcuttiana</i> Orcutt's spineflower	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1	10 300	14 S:5	0	1	0	0	1	3	4	1	4	1	0
<i>Chorizanthe polygonoides var. longispina</i> long-spined spineflower	G5T3 S3	None None	Rare Plant Rank - 1B.2 USFS_S-Sensitive	300 700	99 S:4	0	1	0	0	0	3	1	3	4	0	0
<i>Cicindela hirticollis gravida</i> sandy beach tiger beetle	G5T2 S1	None None		10 10	34 S:1	0	0	0	0	1	0	1	0	0	0	1
<i>Cicindela senilis frosti</i> senile tiger beetle	G4T1 S1	None None		20 20	9 S:1	0	0	0	0	1	1	1	0	1	0	0
<i>Coelus globosus</i> globose dune beetle	G1 S1	None None	IUCN_VU-Vulnerable	10 10	49 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Comarostaphylis diversifolia ssp. diversifolia</i> summer holly	G3T2 S2	None None	Rare Plant Rank - 1B.2	200 400	87 S:22	1	2	1	0	2	16	9	13	20	2	0
<i>Corethrogyne filaginifolia var. incana</i> San Diego sand aster	G4T1 S1	None None	Rare Plant Rank - 1B.1	120 380	9 S:4	0	2	1	0	0	1	1	3	4	0	0
<i>Corethrogyne filaginifolia var. linifolia</i> Del Mar Mesa sand aster	G4T1 S1	None None	Rare Plant Rank - 1B.1	100 420	30 S:16	3	3	2	2	2	4	12	4	14	1	1
<i>Cylindropuntia californica var. californica</i> snake cholla	G3T2 S1	None None	Rare Plant Rank - 1B.1	320 320	17 S:1	0	1	0	0	0	0	0	1	1	0	0
<i>Danaus plexippus</i> monarch butterfly	G5 S3	None None		300 400	334 S:5	0	3	1	0	1	0	2	3	4	0	1
<i>Diadophis punctatus similis</i> San Diego ringneck snake	G5T2T3 S2?	None None	USFS_S-Sensitive	300 750	10 S:3	0	1	0	0	0	2	0	3	3	0	0
<i>Dudleya brevifolia</i> short-leaved dudleya	G2T1 S1	None Endangered	Rare Plant Rank - 1B.1	100 400	9 S:7	0	2	2	0	3	0	3	4	4	0	3



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<i>Dudleya variegata</i> variegated dudleya	G2 S2.2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	360 700	59 S:3	0	0	0	0	0	0	3	0	0	0	0
<i>Elanus leucurus</i> white-tailed kite	G5 S3	None None	BLM_S-Sensitive CDFW_FP-Fully Protected IUCN_LC-Least Concern	200 200	157 S:1	1	0	0	0	0	0	0	0	1	0	0
<i>Eremophila alpestris actia</i> California horned lark	G5T3Q S3	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	400 400	77 S:1	0	0	0	0	0	1	0	0	1	0	0
<i>Eryngium aristulatum</i> var. <i>parishii</i> San Diego button-celery	G5T1 S1	Endangered Endangered	Rare Plant Rank - 1B.1	220 440	71 S:17	0	2	2	5	6	2	8	9	11	0	6
<i>Euderma maculatum</i> spotted bat	G4 S2S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern WBWG_H-High Priority	50 50	68 S:1	0	0	0	0	0	1	0	0	1	0	0
<i>Eumops perotis californicus</i> western mastiff bat	G5T4 S3?	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern WBWG_H-High Priority	30 150	293 S:2	0	0	0	0	0	2	0	2	2	0	0
<i>Euphorbia misera</i> cliff spurge	G5 S1	None None	Rare Plant Rank - 2.2	50 266	34 S:6	0	0	0	0	0	6	5	1	6	0	0
<i>Ferocactus viridescens</i> San Diego barrel cactus	G4 S2	None None	Rare Plant Rank - 2.1	150 800	154 S:20	1	4	1	0	1	13	13	7	19	1	0
<i>Geothallus tuberosus</i> Campbell's liverwort	G1 S1	None None	Rare Plant Rank - 1B.1 USFS_S-Sensitive	380 400	4 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Harpagonella palmeri</i> Palmer's grapplinghook	G4 S3.2	None None	Rare Plant Rank - 4.2	300 300	57 S:1	0	0	1	0	0	0	0	1	1	0	0
<i>Heterotheca sessiliflora</i> ssp. <i>sessiliflora</i> beach goldenaster	G4T2T3 S2.1?	None None	Rare Plant Rank - 1B.1	15 15	13 S:3	0	0	0	0	0	3	0	3	3	0	0
<i>Isocoma menziesii</i> var. <i>decumbens</i> decumbent goldenbush	G3G5T2T3 S2.2	None None	Rare Plant Rank - 1B.2	10 443	63 S:7	1	1	0	0	0	5	1	6	7	0	0



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<i>Iva hayesiana</i> San Diego marsh-elder	G3? S2.2?	None None	Rare Plant Rank - 2.2	40 300	58 S:8	0	1	0	0	0	0	0	7	5	3	8	0	0
<i>Lasius blossevillii</i> western red bat	G5 S3?	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	150 150	119 S:1	0	0	0	0	0	0	0	1	0	1	1	0	0
<i>Lasius cinereus</i> hoary bat	G5 S4?	None None	IUCN_LC-Least Concern WBWG_M-Medium Priority	150 150	235 S:1	0	0	0	0	0	0	0	1	0	1	1	0	0
<i>Lasthenia glabrata ssp. coulteri</i> Coulter's goldfields	G4T3 S2.1	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive	5 380	89 S:3	0	0	0	0	0	0	3	3	0	0	3	0	0
<i>Laterallus jamaicensis coturniculus</i> California black rail	G4T1 S1	None Threatened	ABC_WLBCC-Watch List of Birds of Conservation Concern BLM_S-Sensitive CDFW_FP-Fully Protected IUCN_NT-Near Threatened USFWS_BCC-Birds of Conservation Concern	20 20	241 S:1	0	0	0	0	0	0	1	1	0	0	1	0	0
<i>Lepidium virginicum var. robinsonii</i> Robinson's pepper-grass	G5T3 S3	None None	Rare Plant Rank - 1B.2	279 650	134 S:8	0	0	0	0	0	0	8	1	7	8	0	0	0
<i>Leptosyne maritima</i> sea dahlia	G3 S2.2	None None	Rare Plant Rank - 2.2	80 400	27 S:7	0	0	0	1	0	6	5	5	2	7	0	0	0
<i>Lepus californicus bennettii</i> San Diego black-tailed jackrabbit	G5T3? S3?	None None	CDFW_SSC-Species of Special Concern	380 380	96 S:1	0	0	0	0	0	1	1	1	0	1	0	0	0
<i>Lotus nuttallianus</i> Nuttall's lotus	G1 S1	None None	Rare Plant Rank - 1B.1	5 5	36 S:2	0	0	1	0	1	0	0	2	0	1	0	0	1
<i>Melitta californica</i> California mellitid bee	G4? S2?	None None		200 200	5 S:1	0	0	0	0	0	1	1	1	0	0	0	1	0
<i>Monardella viminea</i> willow monardella	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1	200 325	28 S:5	0	1	1	1	1	2	0	3	2	3	1	1	1



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<i>Myosurus minimus</i> ssp. <i>apus</i> little mouse-tail	G5T2Q S2.2	None None	Rare Plant Rank - 3.1	370 370	24 S:1	0	1	0	0	0	0	0	1	0	0	0	0
<i>Myotis yumanensis</i> Yuma myotis	G5 S4?	None None	BLM_S-Sensitive IUCN_LC-Least Concern WBWG_LM+Low-Medium Priority	30 150	256 S:2	0	0	0	0	0	2	0	2	0	0	0	0
<i>Navarretia fossalis</i> spreading navarretia	G1 S1	Threatened None	Rare Plant Rank - 1B.1	400 435	65 S:5	0	0	0	0	2	3	4	1	3	1	1	1
<i>Nemacaulis denudata</i> var. <i>denudata</i> coast woolly-heads	G3G4T3? S2.2	None None	Rare Plant Rank - 1B.2	10 10	37 S:2	0	1	0	0	0	1	1	1	2	0	0	0
<i>Neotoma lepida intermedia</i> San Diego desert woodrat	G5T3? S3?	None None	CDFW_SSC-Species of Special Concern	50 300	115 S:4	2	1	1	0	0	0	0	4	0	0	0	0
<i>Nyctinomops femorosaccus</i> pocketed free-tailed bat	G4 S2S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern WBWG_M+Medium Priority	30 70	90 S:2	0	0	0	0	0	2	0	2	0	0	0	0
<i>Nyctinomops macrotis</i> big free-tailed bat	G5 S2	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern WBWG_MH+Medium-High Priority	225 225	32 S:1	0	0	0	0	0	1	1	0	1	0	0	0
<i>Orcuttia californica</i> California Orcutt grass	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1	350 350	37 S:1	0	0	0	0	0	1	0	1	0	0	0	0
<i>Orobanche parishii</i> ssp. <i>brachyloba</i> short-lobed broomrape	G4?T3 S3.2	None None	Rare Plant Rank - 4.2	240 240	26 S:1	0	0	0	0	0	1	1	0	1	0	0	0
<i>Passerculus sandwichensis beldingi</i> Belding's savannah sparrow	G5T3 S3	None Endangered		5 390	36 S:3	0	1	1	0	0	1	1	2	3	0	0	0
<i>Perognathus longimembris pacificus</i> Pacific pocket mouse	G5T1 S1	Endangered None	CDFW_SSC-Species of Special Concern	50 50	13 S:1	0	0	0	0	0	1	0	1	1	0	0	0



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<i>Phrynosoma blainvillii</i> coast horned lizard	G4G5 S3S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive	200 380	677 S:6	0	0	1	0	0	0	5	2	4	6	0	0
<i>Pinus torreyana ssp. torreyana</i> torrey pine	G1T1 S1	None None	Rare Plant Rank - 1B.2	240 340	3 S:3	0	0	0	0	0	3	3	0	0	3	0	0
<i>Plestiodon skiltonianus interparietalis</i> Coronado Island skink	G5T2T3Q S1S2	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern	240 300	33 S:3	0	0	1	0	0	2	0	0	3	3	0	0
<i>Pogogyne abramsii</i> San Diego mesa mint	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1	245 440	30 S:14	0	1	2	5	6	0	9	5	8	0	0	6
<i>Poliophtila californica californica</i> coastal California gnatcatcher	G3T2 S2	Threatened None	ABC_WLBCC-Watch List of Birds of Conservation Concern CDFW_SSC-Species of Special Concern	10 700	804 S:35	2	7	3	1	0	22	11	24	35	0	0	0
<i>Quercus dumosa</i> Nuttall's scrub oak	G2 S2	None None	Rare Plant Rank - 1B.1 USFS_S-Sensitive	200 400	97 S:25	1	2	1	0	0	21	3	22	25	0	0	0
<i>Rallus longirostris levipes</i> light-footed clapper rail	G5T1T2 S1	Endangered Endangered	ABC_WLBCC-Watch List of Birds of Conservation Concern CDFW_FP-Fully Protected	5 15	30 S:3	0	0	0	1	0	2	0	3	3	0	0	0
<i>San Diego Mesa Harbpan Vernal Pool</i> San Diego Mesa Harbpan Vernal Pool	G2 S2.1	None None		360 440	38 S:15	0	0	0	0	6	9	15	0	11	0	0	4
<i>Senecio aphanactis</i> chaparral ragwort	G3? S2	None None	Rare Plant Rank - 2.2		47 S:2	0	0	0	0	1	1	2	0	1	1	0	0
<i>Southern Coastal Salt Marsh</i> Southern Coastal Salt Marsh	G2 S2.1	None None			24 S:1	0	0	0	0	0	1	1	0	1	0	0	0
<i>Southern Maritime Chaparral</i> Southern Maritime Chaparral	G1 S1.1	None None		110 350	26 S:14	0	2	0	0	1	11	1	13	13	0	0	1
<i>Southern Riparian Forest</i> Southern Riparian Forest	G4 S4	None None		20 160	20 S:4	0	0	0	0	0	4	4	0	4	0	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks							Population Status		Presence	
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Southern Riparian Scrub</i> Southern Riparian Scrub	G3 S3.2	None None		220 220	56 S:1	0	0	0	0	0	0	1	0	1	0	0
<i>Spea hammondi</i> western spadefoot	G3 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened	380 430	422 S:2	0	0	0	0	0	2	1	1	2	0	0
<i>Sphaerocarpos drewei</i> bottle liverwort	G1 S1	None None	Rare Plant Rank - 1B.1 USFS_S-Sensitive	380 380	3 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Stemodia durantifolia</i> purple stemodia	G5 S2.1?	None None	Rare Plant Rank - 2.1	400 400	19 S:1	0	0	0	0	0	1	0	1	1	0	0
<i>Sternula antillarum browni</i> California least tern	G4T2T3Q S2S3	Endangered Endangered	ABC_WLBCC-Watch List of Birds of Conservation Concern CDFW_FP-Fully Protected	2 5	67 S:2	0	0	0	0	1	1	2	0	1	0	1
<i>Suaeda esteroa</i> estuary seablite	G3 S2	None None	Rare Plant Rank - 1B.2		23 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Texosporium sancti-jacobi</i> woven-spored lichen	G3 S1	None None		200 423	19 S:6	0	0	0	0	1	5	0	6	5	1	0
<i>Torrey Pine Forest</i> Torrey Pine Forest	G1 S1.1	None None		300 342	3 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Tryonia imitator</i> mimic tryonia (=California brackishwater snail)	G2G3 S2S3	None None	IUCN_DD-Data Deficient	2 15	39 S:2	0	0	0	0	0	2	1	1	2	0	0
<i>Vireo bellii pusillus</i> least Bell's vireo	G5T2 S2	Endangered Endangered	ABC_WLBCC-Watch List of Birds of Conservation Concern IUCN_NT-Near Threatened	25 240	256 S:3	0	3	0	0	0	0	0	3	3	0	0

Attachment 2

MSCP Conformance Review: Sections 1.4.2 and Section 1.4.3

Based on the Individual Biological Assessment Report and
Master Storm Water System Maintenance Program (T&SWD 2011)

Section 1.4.2 - General Planning Policies and Design Guidelines	
Roads and Utilities - Construction and Maintenance Policies:	Compliance
1. All proposed utility lines (e.g., sewer, water, etc.) should be designed to avoid or minimize intrusion into the MHPA. These facilities should be routed through developed or developing areas rather than the MHPA, where possible. If no other routing is feasible, then the lines should follow previously existing roads, easements, rights-of-way and disturbed areas, minimizing habitat fragmentation.	Not applicable.
2. All new development for utilities and facilities within or crossing the MHPA shall be planned, designed, located and constructed to minimize environmental impacts. All such activities must avoid disturbing the habitat of MSCP covered species, and wetlands. If avoidance is infeasible, mitigation will be required.	Not applicable.
3. Temporary construction areas and roads, staging areas, or permanent access roads must not disturb existing habitat unless determined to be unavoidable. All such activities must occur on existing agricultural lands or in other disturbed areas rather than in habitat. If temporary habitat disturbance is unavoidable, then restoration of, and/or mitigation for, the disturbed area after project completion will be required.	Project staging and access located in developed or disturbed/ruderal areas.
4. Construction and maintenance activities in wildlife corridors must avoid significant disruption of corridor usage. Environmental documents and mitigation monitoring and reporting programs covering such development must clearly specify how this will be achieved, and construction plans must contain all the pertinent information and be readily available to crews in the field. Training of construction crews and field workers must be conducted to ensure that all conditions are met. A responsible party must be specified.	Maintenance will not occur within any MHPA-designated wildlife corridors. The maintenance areas have limited value as wildlife corridors.
5. Roads in the MHPA will be limited to those identified in Community Plan Circulation Elements, collector streets essential for area circulation, and necessary maintenance/emergency access roads. Local streets should not cross the MHPA except where needed to access isolated development areas.	Not applicable.
6. Development of roads in canyon bottoms should be avoided whenever feasible. If an alternative location outside the MHPA is not feasible, then the road must be designed to cross the shortest length possible of the MHPA in order to minimize impacts and fragmentation of sensitive species and habitat. If roads cross the MHPA, they should provide for fully functional wildlife movement capability. Bridges are the preferred method of providing for movement, although culverts in selected locations may be acceptable. Fencing, grading and plant cover should be provided where needed to protect and shield animals, and guide them away from roads to appropriate crossings.	Not applicable.
7. Where possible, roads within the MHPA should be narrowed from existing design standards to minimize habitat fragmentation and disruption of wildlife movement and breeding areas. Roads must be located in lower quality habitat or disturbed areas to the extent possible.	Not applicable.
8. For the most part, existing roads and utility lines are considered a compatible use within the MHPA and, therefore, will be maintained. Exceptions may occur where underutilized or duplicative road systems are determined not to be necessary as identified in the Framework Management	Not applicable.

MSCP Conformance Review, continued

Fencing, Lighting, and Signage	Compliance
1. Fencing or other barriers will be used where it is determined to be the best method to achieve conservation goals and adjacent to land uses incompatible with the MHPA. For example, use chain link or cattle wire to direct wildlife to appropriate corridor crossings, natural rocks/boulders or split rail fencing to direct public access to appropriate locations, and chain link to provide added protection of certain sensitive species or habitats (e.g., vernal pools).	Construction fencing may be used on a temporary basis, as appropriate, around work areas and staging areas to delineate work limits and protect adjacent habitat.
2. Lighting shall be designed to avoid intrusion into the MHPA and effects on wildlife. Lighting in areas of wildlife crossings should be of low-sodium or similar lighting. Signage will be limited to access and litter control and educational purposes.	No lighting will be installed as part of the project.
Materials Storage	Compliance
Prohibit storage of materials (e.g., hazardous or toxic, chemicals, equipment, etc.) within the MHPA and ensure appropriate storage per applicable regulations in any areas that may impact the MHPA, especially due to potential leakage.	Temporary storage of hazardous materials such as equipment fuel will follow all applicable rules and guidelines.
Mining, Extraction, and Processing Facilities	Compliance
1. Mining operations include mineral extraction, processing and other related mining activities (e.g. asphaltic processing). Currently permitted mining operations that have approved restoration plans may continue operating in the MHPA. New or expanded mining operations on lands conserved as part of the MHPA are incompatible with MSCP preserve goals for covered species and their habitat unless otherwise agreed to by the wildlife agencies at the time the parcel is conserved. New operations are permitted in the MHPA if: 1) impacts have been assessed and conditions incorporated to mitigate biological impacts and restore mined areas; 2) adverse impacts to covered species in the MHPA have been mitigated consistent with the Subarea Plan; and 3) requirements of other City land use policies and regulations (e.g. Adjacency Guidelines, Conditional Use Permit) have been satisfied. Existing and any newly permitted operations adjacent to or within the MHPA shall meet noise, air quality and water quality regulation requirements, as identified in the conditions of any existing or new permit, in order to adequately protect adjacent preserved areas and covered species. Such facilities shall also be appropriately restored upon cessation of mining activities.	Not applicable.
2. All mining and other related activities must be consistent with the objectives, guidelines, and recommendations in the MSCP plan, the City of San Diego's Environmentally Sensitive Lands Ordinance, all relevant long-range plans, as well as with the State Surface Mining and Reclamation Act (SMARA) of 1975.	Not applicable.
3. Any sand removal activities should be monitored for noise impacts to surrounding sensitive habitats, and all new sediment removal or mining operations proposed in proximity to the MHPA, or changes in existing operations must include noise reduction methods that take into consideration the breeding and nesting seasons of sensitive bird	Not applicable.
4. All existing and future mined lands adjacent to or within the MHPA shall be reclaimed pursuant to SMARA. Ponds are considered compatible uses where they provide native wildlife and wetland habitats and do not conflict with conservation goals of the MSCP and Subarea Plan.	Not applicable.
5. Any permitted mining activity including reclamation of sand must consider changes and impacts to water quality, water table level, fluvial hydrology, flooding, and wetland and habitats upstream and downstream, and provide adequate mitigation.	Not applicable.

MSCP Conformance Review, continued

Flood Control	Compliance
<p>1. Flood control should generally be limited to existing agreements with resource agencies unless demonstrated to be needed based on a cost benefit analysis and pursuant to a restoration plan. Floodplains within the MHPA, and upstream from the MHPA if feasible, should remain in a natural condition and configuration in order to allow for the ecological, geological, hydrological, and other natural processes to remain or be restored.</p>	<p>The project is consistent with flood control maintenance that occurred when the MSCP was established. The project is also in conformance with MMP (2011) and PEIR (2011). As recommended by the IHHA, proposed channel maintenance involves the minimum amount of sediment/trash removal in order to allow for natural processes and to minimize erosion and sedimentation.</p>
<p>2. No berming, channelization, or man-made constraints or barriers to creek, tributary, or river flows should be allowed in any floodplain within the MHPA unless reviewed by all appropriate agencies, and adequately mitigated. Review must include impacts to upstream and downstream habitats, flood flow volumes, velocities and configurations, water availability, and changes to the water table level.</p>	<p>The project does not include the construction of man-made barriers or substantial modification of the existing concrete-lined channels.</p>
<p>3. No riprap, concrete, or other unnatural material shall be used to stabilize river, creek, tributary, and channel banks within the MHPA. River, stream, and channel banks shall be natural, and stabilized where necessary with willows and other appropriate native plantings. Rock gabions may be used where necessary to dissipate flows and should incorporate design features to ensure wildlife</p>	<p>The project does not include the placement of riprap, concrete, or other unnatural materials.</p>
Section 1.4.3 – Land Use Adjacency Guidelines	
Drainage	Compliance
<p>1. All new and proposed parking lots and developed areas in and adjacent to the preserve must not drain directly into the MHPA. All developed and paved areas must prevent the release of toxins, chemicals, petroleum products, exotic plant materials and other elements that might degrade or harm the natural environment or ecosystem processes within the MHPA. This can be accomplished using a variety of methods including natural detention basins, grass swales or mechanical trapping devices. These systems should be maintained approximately once per year, or as often as needed, to ensure proper functioning. Maintenance should include dredging out of sediments if needed, removing exotic plant materials, and adding chemical-neutralizing compounds (e.g. clay compounds) when necessary and appropriate.</p>	<p>All maintenance of construction equipment (e.g., refueling, oil changing, hydraulic maintenance) will be conducted within designated BMP fortified areas in the staging areas or off site in a manner that will not allow the release of toxins, chemicals, petroleum.</p>
Toxics	Compliance
<p>2. Land uses, such as recreation and agriculture, that use chemicals or generate by-products such as manure, that are potentially toxic or impactive to wildlife, sensitive species, habitat, or water quality need to incorporate measures to reduce impacts caused by the application and/or drainage of such materials into the MHPA. Such measures should include drainage/detention basins, swales, or holding areas with non-invasive grasses or wetland-type native vegetation to filter out the toxic materials. Regular maintenance should be provided. Where applicable, this requirement should be incorporated into leases on publicly owned property as leases come up for renewal.</p>	<p>See response above. No domestic pets will be allowed on the construction site.</p>
Lighting	Compliance
<p>3. Lighting of all developed areas adjacent to the MHPA should be directed away from the MHPA. Where necessary, development should provide adequate shielding with non-invasive plant materials (preferably native), berming, and/or other methods to protect the MHPA and sensitive species from night lighting.</p>	<p>No lighting will be installed as part of the project.</p>

MSCP Conformance Review, continued

Noise	Compliance
<p>4. Uses in or adjacent to the MHPA should be designed to minimize noise impacts. Berms or walls should be constructed adjacent to commercial areas, recreational areas, and any other use that may introduce noises that could impact or interfere with wildlife utilization of the MHPA. Excessively noisy uses or activities adjacent to breeding areas must incorporate noise reduction measures and be curtailed during the breeding season of sensitive species. Adequate noise reduction measures should also be incorporated for the remainder of the year.</p>	<p>Project activities will be conducted outside of the bird breeding season to avoid noise impacts to nesting birds.</p>
Barriers	Compliance
<p>5. New development adjacent to the MHPA may be required to provide barriers (e.g., non-invasive vegetation, rocks/boulders, fences, walls, and/or signage) along the MHPA boundaries to direct public access to appropriate locations and reduce domestic animal predation.</p>	<p>Not applicable.</p>
Invasives	Compliance
<p>6. No invasive non-native plant species shall be introduced into areas adjacent to the MHPA.</p>	<p>The project will not include introduction of invasive species.</p>
Brush Management	Compliance
<p>7. New residential development located adjacent to and topographically above the MHPA (e.g., along canyon edges) must be set back from slope edges to incorporate Zone 1 brush management areas on the development pad and outside of the MHPA. Zones 2 and 3 will be combined into one zone (Zone 2) and may be located in the MHPA upon granting of an easement to the City (or other acceptable agency) except where narrow wildlife corridors require it to be located outside of the MHPA. Zone 2 will be increased by 30 feet, except in areas with a low fire hazard severity rating where no Zone 2 would be required. Brush management zones will not be greater in size that is currently required by the City's regulations. The amount of woody vegetation clearing shall not exceed 50 percent of the vegetation existing when the initial clearing is done. Vegetation clearing shall be done consistent with City standards and shall avoid/minimize impacts to covered species to the maximum extent possible. For all new development, regardless of the ownership, the brush management in the Zone 2 area will be the responsibility of a homeowners association or other private party. For existing project and approved projects, the brush management zones, standards and locations, and clearing techniques will not change from those required under existing regulations.</p>	<p>Not applicable.</p>
Grading/Land Development	Compliance
<p>8. Manufactured slopes associated with site development shall be included within the development footprint for projects within or adjacent to the MHPA.</p>	<p>Not applicable.</p>

Sorrento Area Channels – Reach 3 – MMP MAP No. 11 & 12

Attachment 3 – IMP Maintenance Methodology

FACILITY/CHANNEL	SOLEDAD CREEK (REACH 3A, 3B, 3C, & 3D)
DIMENSIONS	CONCRETE-LINED, TRAPEZOIDAL CHANNEL 2,280' LENGTH 63' BOTTOM WIDTH (APPROXIMATE) 78' TOP WIDTH (APPROXIMATE) 5' CHANNEL DEPTH -- 6" AVERAGE SEDIMENT DEPTH CUBIC YARDS: 2,000-4,000 (APPROXIMATE) MAXIMUM CUBIC YARDS: 8,000
MAINTENANCE METHOD	MECHANIZED SEDIMENT & VEGETATION REMOVAL
EQUIPMENT (EQUIPMENT WILL BE EQUIVELENT OR SMALLER IN SIZE/TYPE)	<ul style="list-style-type: none"> • RUBBER TRACKED SKID-STEER(S) (JOHN DEERE 333E) • EXCAVATOR(S) (CAT 320 WITH THUMB) • LOADER(S) (CAT 966) • SKID-STEER(S) (BOBCAT 650) • SWEEPER (JOHNSON 4000 OR TYMCO 500X) • DUMP TRUCK(S) & PUP TRAILER (20 YD) • 4" TO 6" TRASH PUMPS (WACKER & GODWIN)
SCHEDULE: 6 - 8 WEEKS (7 DAYS A WEEK, 6 AM TO 6 PM)	
STAFFING: MON TO FRI: 10 TO 12 PEOPLE; SA- SUN – 14 TO 18 PEOPLE (ADDITIONAL TRUCK DRIVERS MAY BE AVAILABLE)	
MAINTENANCE PROCEDURE	
CHANNEL SEQUENCE	<ol style="list-style-type: none"> 1. REACH 3A – STATION 0+00 TO 0+93 - ACCESS RAMP TO MTS PEDESTRIAN BRIDGE THAT CROSSES CHANNEL 2. REACH 3B – STATION 0+93 TO 6+75 - MTS PEDESTRIAN BRIDGE THAT CROSSES CHANNEL TO SORRENTO VALLEY BLVD (SVB) BRIDGE 3. REACH 3C – STATION 6+75 TO 7+69 - UNDERNEATH SORRENTO VALLEY BLVD (SVB) BRIDGE 4. REACH 3D – STATION 7+69 TO 22+80 - SOUTH OF SORRENTO VALLEY BLVD (SVB) BRIDGE TO END OF CONCRETE-LINED CHANNEL
ACCESS & LOADING AREA(S)	<p>ACCESS & LOADING AREA-3A FOR REACH 3A, 3B, AND 3C: (APPROX 3,780 SQ FT) EQUIPMENT AND TRUCKS ENTER/EXIT(S) CHANNEL VIA PERMENANT CONCRETE ACCESS RAMP NEAR BUS TURN-AROUND ON ROSELLE ST.</p> <p>ACCESS & LOADING AREA-3B FOR REACH 3C & 3D: (20' X 40') LOADER & EXCAVATOR ENTER/EXIT(S) CHANNEL FROM ROSELLE ST.</p>
STAGING AREA(S) & FUELING AREA(S)	<p>STAGING AREA-3A: APPROXIMATLY (40' x 50') LOCATED OUTSIDE THE CHANNEL IMMEDIATELY DOWNSTREAM OF REACH 3A</p> <p>STAGING AREA-3B: (20' X 40') LOCATED BETWEEN ROSELLE ST AND CHANNEL APPROX. 600' SOUTHEAST OF SVB</p>

Sorrento Area Channels – Reach 3 – MMP MAP No. 11 & 12

Attachment 3 – IMP Maintenance Methodology

	<p>FUELING AREA-3A: (30' X 12') LOCATED ON ROSELLE STREET APPROX. 180' SOUTHWEST OF STAGING AREA-3A</p> <p>FUELING AREA-3B: (30' X 12') LOCATED ON ROSELLE STREET APPROX. 150' SOUTH OF STAGING AREA-3B</p>
<p>METHODOLOGY</p>	<p><u>REACH 3A:</u></p> <ol style="list-style-type: none"> 1. DRY WEATHER FLOW DIVERSION BERM (WATER FILLED BARRIERS, SANDBAGS, AND VISQUEEN), PLACED AT NORTHERN LIMITS OF CHANNEL CLEANING. 2. SECOND DRY WEATHER FLOW DIVERSION BERM, DIVERSION PIPES, & PUMPS PLACED WITHIN CHANNEL IMMEDIATELY UPSTREAM OF SORRENTO VALLEY ROAD BRIDGE. 3. MAINTENANCE AREA BETWEEN THE FLOW DIVERSION BERMS DEWATERED AS NECESSRY 4. RUBBER TRACKED SKID-STEER(S), DUMP TRUCK & LOADER ENTER/EXIT(S) REACH 3A VIA PERMENANT ACCESS RAMP AT ACCESS & LOADING AREA-3A. 5. RUBBER TRACKED SKID-STEER(S) MOVE MATERIAL INTO PILES FOR LOADER. 6. LOADER LOADS MATERIAL INTO WAITING DUMP TRUCK. 7. DUMP TRUCK HAULS MATERIAL OUT OF CHANNEL VIA RAMP AT ACCESS & LOADING AREA-3A TO LEGAL DISPOSAL SITE. <p><u>REACH 3B:</u></p> <ol style="list-style-type: none"> 1. EQUIPMENT ENTER/EXIT(S) REACH 3B FROM ACCESS & LOADING AREA-3A VIA REACH 3A. 2. EXCAVATOR SCOOPS MATERIAL & PLACES MATERIAL IN PILES FOR RUBBER TRACKED SKID-STEER(S). 3. RUBBER TRACKED SKID-STEER(S) MOVE MATERIAL FROM REACH 3B UNDER THE MTS PEDESTRIAN BRIDGE TO THE LOADER. 4. LOADER LOADS MATERIAL DEPOSITED BY RUBBER TRACKED SKID-STEER(S) INTO WAITING DUMP TRUCK. 5. DUMP TRUCK HAULS MATERIAL OUT OF CHANNEL VIA RAMP AT ACCESS & LOADING AREA-3A TO LEGAL DISPOSAL SITE. <p><u>REACH 3C:</u></p> <ol style="list-style-type: none"> 1. SKID-STEER ENTERS/EXIT(S) REACH 3C FROM ACCESS & LOADING AREA-3A VIA REACHES 3A & 3B AND VIA ACCESS & LOADING AREA 3B VIA REACH3D 2. SKID-STEER MOVES MATERIAL FROM REACH 3C (UNDER SVB BRIDGE INTO EITHER REACH 3B OR 3D DEPENDING ON WHICH IS CLOSER.) 3. ONCE MATERIAL IS IN REACH 3B OR 3D IT IS HANDLED IN THE MANNER DESCRIBED IN THOSE REACHES.

Sorrento Area Channels – Reach 3 – MMP MAP No. 11 & 12

Attachment 3 – IMP Maintenance Methodology

	<p>4. REMOVE DRY WEATHER DIVERSION BERM FROM NORTHERN LIMITS OF CHANNEL CLEANING</p> <p><u>REACH 3D:</u></p> <ol style="list-style-type: none"> 1. INSTALL DRY WEATHER FLOW DIVERSION BERM, DIVERSION PIPES, & PUMPS PLACED WITHIN CHANNEL UPSTREAM OF ACCESS & LOADING AREA-3B. 2. CREWS REMOVE GUARDRAILS, FENCE, &/OR BOLLARDS TO OPEN GATE FOR ACCESS & LOADING AREA-3B 3. LOADER & EXCAVATOR ENTER CHANNEL AT ACCESS & LOADING AREA-3B 4. LOADER CONSTRUCTS TEMPORARY RAMP WITH IN-CHANNEL MATERIAL TO BETTER FACILITATE ACCESS. 5. EXCAVATOR MOVES UPSTREAM OR DOWNSTREAM FROM ACCESS & LOADING AREA-3B & PLACES MATERIAL IN PILES FOR LOADER. 6. LOADER MOVES MATERIAL TO ACCESS & LOADING AREA-3D. 7. SECOND EXCAVATOR USES ONE OF THE OPTIONS BELOW TO SCOOP MATERIAL WITHIN CHANNEL & LOADS WAITING DUMP TRUCK STATIONED IN PUBLIC RIGHT-OF-WAY (ROSELLE ST). <p><u>OPTION A:</u> EXCAVATOR IS STATIONED OUTSIDE THE CHANNEL IN ACCESS & LOADING AREA-3D; OR</p> <p><u>OPTION B:</u> TEMPORARY IN CHANNEL LOADING PAD AREA IS CONSTRUCTED WITH IN-CHANNEL MATERIAL, IF AVAILABLE.</p> <ol style="list-style-type: none"> 8. DUMP TRUCK HAULS MATERIAL TO LEGAL DISPOSAL SITE. 9. REMOVE REMAINING DRY WEATHER DIVERSION BERMS.
<p>POST-MAINTENANCE</p>	<p>DEMOBILIZE EQUIPMENT.</p> <p>REPLACE FENCE, BOLLARDS, & GUARDRAILS AT ACCESS & LOADING AREA-3D.</p> <p>RESTORE SITE, INCLUDING TEMPORARY ACCESS & LOADING AREA(S), TO PRE-MAINTENANCE OR AS-BUILT CONDITION.</p> <p>REMOVE STANDING WATER (IF ANY) WITHIN DRAINAGE FACILITY WITH PUMPS OR VACTOR.</p> <p>REMOVE TEMPORARY CONSTRUCTION BMPS.</p>
<p>OTHER NOTES</p>	<p>TRAFFIC CONTROL IS REQUIRED TO CLOSE LANE ON ROSELLE ST.</p> <p>SWEEPERS WILL SWEEP ALL STAGING AREAS, ADJACENT PUBLIC RIGHTS OF WAY, & TRUCK ROUTES NIGHTLY.</p>

Sorrento Area Channels – Reach 7 – MMP Map No. 9

Attachment 3 – IMP Maintenance Methodology

FACILITY/CHANNEL	FLINKKOTE CHANNEL (REACH 7A, 7B, & 7C)
DIMENSIONS	CONCRETE-LINED TRAPAZOIDAL CHANNEL(S) 1,000' LENGTH 8' BOTTOM WIDTH 16' TOP WIDTH 3' CHANNEL DEPTH -- 6" AVERAGE SEDIMENT DEPTH CUBIC YARDS: 125-175 (APPROXIMATE) MAXIMUM CUBIC YARDS: 300
MAINTENANCE METHOD	MECHANIZED SEDIMENT & VEGETATION REMOVAL
EQUIPMENT (EQUIPMENT WILL BE EQUIVELENT OR SMALLER IN SIZE/TYPE)	<ul style="list-style-type: none"> • SKID-STEER(S) (BOBCAT S650) • DUMP TRUCK(S) & PUP TRAILER (20 YD) • EXCAVATOR (JOHN DEERE 50D) • GRADALL • VACTOR (2100 PLUS PD) • SWEEPER (JOHNSON 4000 OR TYMCO 500X)
SCHEDULE: 6-8 DAYS; SA-SUN 6 AM TO 6 PM	
STAFFING: 8 – 12 PEOPLE	
MAINTENANCE PROCEDURE	
CHANNEL SEQUENCE	<ol style="list-style-type: none"> 1. REACH 7A – STATION 0+00 TO 4+10 – CONCRETE ACCESS RAMP (FLINKKOTE AVE) TO PEDESTRIAN BRIDGE ACROSS CHANNEL 2. REACH 7B – STATION 4+10 TO 7+41 – PEDISTRIAN BRIDGE ACROSS CHANNEL TO ROSELLE ST 3. REACH 7C – STATION 8+24 TO 10+80 – ROSELLE ST TO (2) 36" REINFORCED CONCRETE PIPES
ACCESS & LOADING AREA(S)	<p>ACCESS & LOADING AREA-7A FOR REACH 7A – (2,280 SQ FT) EQUIPMENT ENTER/EXIT(S) CHANNEL VIA PERMENENT ACCESS RAMP LOCATED BETWEEN 11095 AND 11055 FLINKKOTE AVE.</p> <p>ACCESS & LOADING AREA-7B FOR REACH 7B – (30' X 105') EQUIPMENT LOWERS SKID-STEER INTO CHANNEL FROM EXISTING PAVED PARKING LOT LOCATED AT 11040 ROSELLE ST.</p> <p>ACCESS & LOADING AREA-7C FOR REACH 7C – (842 FT SQ) SKID-STEER ENTER/EXIT(S) CHANNEL. EXCAVATOR STATIONED OUTSIDE CHANNEL ABOVE CHANNEL BANK TO REMOVE MATERIAL.</p>
STAGING AREA(S)	STAGING AREA-7A: (190' X 40') WITHIN EXISTING PAVED PARKING LOT & LANDSCAPE AREA LOCATED AT 11065 ROSELLE ST.
METHODOLOGY	<p><u>REACH 7A:</u></p> <ol style="list-style-type: none"> 1. VACTOR REMOVES STANDING WATER FROM CHANNEL & THEN IS POSITIONED AT UPSTREAM END TO CAPTURE ANY INCOMING FLOWS. 2. CREWS INSTALL TEMPORARY GRAVEL BAG CHECK DAM ACROSS CHANNEL AT DOWNSTREAM END OF REACH 7A. 3. SKID-STEER(S) ENTER/EXIT(S) CHANNEL FROM EXISTING ACCESS RAMP (ACCESS & LOADING AREA-7A).

Sorrento Area Channels – Reach 7 – MMP Map No. 9

Attachment 3 – IMP Maintenance Methodology

	<ol style="list-style-type: none">4. SKID-STEER MOVES MATERIAL TO ACCESS & LOADING AREA-7A.5. SKID-STEER LOADS WAITING DUMP TRUCK AT ACCESS & LOADING AREA-7A.6. DUMP TRUCK(S) HAUL MATERIAL TO LEGAL DISPOSAL SITE. <p><u>REACH 7B:</u></p> <ol style="list-style-type: none">1. CREWS INSTALL TEMPORARY GRAVEL BAG CHECK DAM ACROSS CHANNEL AT DOWNSTREAM END OF REACH 7B.2. GRADALL LOWERS SKID-STEER INTO CHANNEL AT ACCESS & LOADING AREA-7B.3. SKID-STEER MOVES MATERIAL FROM PEDESTRIAN BRIDGE TO ACCESS & LOADING AREA-7B.4. GRADALL STATIONED OUTSIDE AND ABOVE CHANNEL BANK IN ACCESS & LOADING AREA-7B SCOOPS MATERIAL IN CHANNEL & LOADS INTO DUMP TRUCK.5. DUMP TRUCK(S) HAUL MATERIAL TO LEGAL DISPOSAL SITE. <p><u>REACH 7C:</u></p> <ol style="list-style-type: none">1. VACTOR REMOVES STANDING WATER FROM CHANNEL & THEN IS POSITIONED AT UPSTREAM END TO CAPTURE ANY INCOMING FLOWS.2. CREWS REMOVE FENCE AT ACCESS & LOADING AREA-7C.3. CREWS INSTALL TEMPORARY GRAVEL BAG CHECK DAM ACROSS CHANNEL AT DOWNSTREAM END OF REACH 7C.4. SKID-STEER ENTER/EXIT(S) CHANNEL FROM ACCESS & LOADING AREA-7C.5. SKID-STEER MOVES MATERIAL TO ACCESS & LOADING AREA-7C.6. EXCAVATOR STATIONED OUTSIDE & ABOVE CHANNEL BANK IN ACCESS & LOADING AREA-7C EXCAVATES MATERIAL FROM CHANNEL.7. EXCAVATOR LOADS MATERIAL INTO WAITING DUMP TRUCK IN STAGING AREA-7C.8. DUMP TRUCK(S) HAULS MATERIAL TO A LEGAL DISPOSAL SITE. <p>OPTIONAL METHODOLOGY FOR REACH 7B & 7C IF PRIVATE PROPERTY ACCESS IS NOT GRANTED</p> <ol style="list-style-type: none">1. VACTORS ARE PARKED IN ROSELLE ST NEAR STATION 7+41 AND 8+24.2. CREWS MANUALLY PUSH MATERIAL WITH SHOVELS TO VACTOR TUBE.3. VACTORS HAUL MATERIAL TO A LEGAL DISPOSAL SITE.
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Sorrento Area Channels – Reach 7 – MMP Map No. 9

Attachment 3 – IMP Maintenance Methodology

POST-MAINTENANCE	DEMobilize EQUIPMENT. REPLACE FENCE AT ACCESS & LOADING AREA-7C. RESTORE SITE, INCLUDING TEMPORARY ACCESS/LOADING AREA(S), TO PRE-MAINTENANCE OR AS-BUILT CONDITION. REMOVE TEMPORARY CONSTRUCTION BMPS.
OTHER NOTES	SWEEPERS WILL SWEEP ALL STAGING AREAS, ADJACENT PUBLIC RIGHT OF WAY, & TRUCK ROUTES NIGHTLY. REMOVE STANDING WATER (IF ANY) WITHIN DRAINAGE FACILITY WITH VACTOR. NO FUELING TO HAPPEN ON-SITE. EQUIPMENT WILL BE FUELED OFF-SITE. CITY WILL IMPLEMENT A WEATHER-TRIGGERED ACTION PLAN, AS DESCRIBED IN THE WATER POLLUTION CONTROL PLAN, PRIOR TO A FORECASTED SIGNIFICANT RAIN EVENT.

Attachment 4

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 MMC, 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.

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 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 Assistant Deputy Director (ADD) Environmental Designee and state and federal agencies with jurisdiction over maintenance activities have approved the 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 Mitigation Monitoring Coordinator (MMC) have approved the qualifications for biologist(s) who shall be responsible for monitoring maintenance activities which 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 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, CDFG, RWQCB, USFWS, and Corps. 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 which 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 forest	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 which 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 which 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 not applicable)

(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 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 MMRP resulting from that CEQA analysis.

Mitigation Measure 4.3.15: Impacts to listed or endemic sensitive plant species shall be offset through implementation of one or a combination of the following actions:

- Impacted plants would be salvaged and relocated;
- Seeds from impacted plants would be collected for use at an off-site location;
- Off-site habitat that supports the species impacted shall be enhanced and/or supplemented with seed collected on site; and/or
- Comparable habitat at an off-site location shall be preserved.

Mitigation which involves relocation, enhancement or transplanting sensitive plants shall include the following:

- Conceptual planting plan including grading and, if appropriate, temporary irrigation;
- Planting specifications;
- Monitoring Program including success criteria; and
- Long-term maintenance and preservation plan.

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

- 300 feet from any nesting site of Cooper's hawk (*Accipiter cooperii*);
- 1,500 feet from known locations of the southern pond turtle (*Clemmys marmorata pallida*);
- 900 feet from any nesting sites of northern harriers (*Circus cyaneus*);
- 4,000 feet from any nesting sites of golden eagles (*Aquila chrysaetos*); or
- 300 feet from any occupied burrow or burrowing owls (*Athene cunicularia*).

(Mitigation Measure 4.3.17 not applicable)

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

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

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

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

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

(Mitigation Measure 4.3.23 not applicable)

Mitigation Measure 4.2.24: If maintenance activities will occur within areas supporting listed and/or

narrow endemic plants, the boundaries of the plant populations designated sensitive by the resource agencies will be clearly delineated with flagging or temporary fencing that must remain in place for the duration of the activity.

Mitigation Measure 4.2.25: In order to avoid impacts to nesting avian species, including those species not covered by the 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: Prior to commencing maintenance on any storm water facility within, or immediately adjacent to, a Multi-Habitat Planning Area (MHPA), the ADD Environmental Designee shall verify that all MHPA boundaries and limits of work have been delineated on all maintenance documents.

(Mitigation Measure 4.1.2: A qualified biologist (possessing a valid Endangered Species Act Section 10(a)(1)(a) recovery permit) shall survey those habitat areas inside and outside the MHPA suspected to serve as habitat (based on historical records of site conditions) for the coastal California gnatcatcher, least Bell's vireo and/or other listed species. Surveys for the appropriate species shall be conducted pursuant to the protocol survey guidelines established by the U.S. Fish and Wildlife Service. When other sensitive species, including, but not limited to, the arroyo toad, burrowing owl, or Quino checkerspot butterfly are known or suspected to be present all appropriate protocol surveys and mitigation measures identified in Subchapter 4.3, Biological Resources, required shall be implemented.

Mitigation Measure 4.1.3: If a listed species is located within 500 feet of a proposed maintenance activity and maintenance would occur during the associated breeding season, an analysis of the noise generated by maintenance activity shall be completed by a qualified acoustician (possessing current noise engineer license or registration with monitoring noise level experience with listed animal species) and approved by the ADD Environmental Designee. The analysis shall identify the location of the 60dB(A) L_{eq} noise contour on the maintenance plan. The report shall also identify measures to be undertaken during maintenance to reduce noise levels.

Mitigation Measure 4.1.4: Based on the location of the 60 dB(A) L_{eq} noise contour and the results of the protocol surveys, the Project Biologist shall determine if maintenance has the potential to impact breeding activities of listed species. If one or more of the following species are determined to be significantly impacted by maintenance, then maintenance (inside and outside the MHPA) shall avoid the following breeding seasons unless it is determined that maintenance is needed to protect life or property.

- Coastal California gnatcatcher (between March 1 and August 15 inside the MHPA only; no restrictions outside MHPA);
- Least Bell's vireo (between March 15 and September 15); and
- Southwestern willow flycatcher (between May 1 and September 1).

Mitigation Measure 4.1.5: If maintenance is required during the breeding season for a listed bird to protect life or property, then the following conditions must be met:

- At least two weeks prior to the commencement of maintenance activities, under the direction of a

qualified acoustician, noise attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from maintenance activities shall not exceed 60 dB(A) hourly average at the edge of occupied habitat. Concurrent with the commencement of maintenance activities and the maintenance of necessary noise attenuation facilities, noise monitoring shall be conducted at the edge of the occupied habitat area to ensure that noise levels do not exceed 60 dB(A) hourly average. If the noise attenuation techniques implemented are determined to be inadequate by the qualified acoustician or biologist, then the associated maintenance activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season of the subject species, as noted above.

- Maintenance noise shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the maintenance activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dB(A) hourly average. If not, other measures shall be implemented in consultation with the biologist and the ADD, as necessary, to reduce noise levels to below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. Such measures may include, but are not limited to, limitations on the placement of maintenance equipment and the simultaneous use of equipment.
- Prior to the commencement of maintenance activities that would disturb sensitive resources during the breeding season, the biologist shall ensure that all fencing, staking and flagging identified as necessary on the ground have been installed properly in the areas restricted from such activities.
- If noise attenuation walls or other devices are required to assure protection to identified wildlife, then the biologist shall make sure such devices have been properly constructed, located, and installed.

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 Storm Water Division (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 thirty 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: Prior to commencing any maintenance in, or within 500 feet of any area determined to support coastal California gnatcatchers, the ADD Environmental Designee shall verify that the MHPA boundaries and the following project requirements regarding the coastal California gnatcatcher are shown on the maintenance plans:

NO MAINTENANCE ACTIVITIES SHALL OCCUR BETWEEN MARCH 1 AND AUGUST 15, THE BREEDING SEASON OF THE COASTAL CALIFORNIA GNATCATCHER, UNTIL THE FOLLOWING REQUIREMENTS HAVE BEEN MET TO THE SATISFACTION OF THE ADD ENVIRONMENTAL DESIGNEE:

- a. A QUALIFIED BIOLOGIST (POSSESSING A VALID ENDANGERED SPECIES ACT SECTION 10(a)(1)(A) RECOVERY PERMIT) SHALL SURVEY THOSE HABITAT AREAS WITHIN THE MHPA THAT WOULD BE SUBJECT TO MAINTENANCE NOISE LEVELS EXCEEDING 60 DECIBELS [dB(A)] HOURLY AVERAGE FOR THE PRESENCE OF THE COASTAL CALIFORNIA GNATCATCHER. SURVEYS FOR THE COASTAL CALIFORNIA GNATCATCHER SHALL BE CONDUCTED PURSUANT TO THE PROTOCOL SURVEY GUIDELINES ESTABLISHED BY THE U.S. FISH AND WILDLIFE SERVICE WITHIN THE BREEDING SEASON PRIOR TO THE COMMENCEMENT OF ANY MAINTENANCE. IF GNATCATCHERS ARE PRESENT, THEN THE FOLLOWING CONDITIONS MUST BE MET:
 1. BETWEEN MARCH 1 AND AUGUST 15, MAINTENANCE OF OCCUPIED GNATCATCHER HABITAT SHALL BE PERMITTED. AREAS RESTRICTED FROM SUCH ACTIVITIES SHALL BE STAKED OR FENCED UNDER THE SUPERVISION OF A QUALIFIED BIOLOGIST; AND
 2. BETWEEN MARCH 1 AND AUGUST 15, NO MAINTENANCE ACTIVITIES SHALL OCCUR WITHIN ANY PORTION OF THE SITE WHERE MAINTENANCE ACTIVITIES WOULD RESULT IN NOISE LEVELS EXCEEDING 60 dB(A)

HOURLY AVERAGE AT THE EDGE OF OCCUPIED GNATCATCHER HABITAT. AN ANALYSIS SHOWING THAT NOISE GENERATED BY MAINTENANCE ACTIVITIES WOULD NOT EXCEED 60 dB(A) HOURLY AVERAGE AT THE EDGE OF OCCUPIED HABITAT MUST BE COMPLETED BY A QUALIFIED ACOUSTICIAN (POSSESSING CURRENT NOISE ENGINEER LICENSE OR REGISTRATION WITH MONITORING NOISE LEVEL EXPERIENCE WITH LISTED ANIMAL SPECIES) AND APPROVED BY THE CITY MANAGER AT LEAST TWO WEEKS PRIOR TO THE COMMENCEMENT OF MAINTENANCE ACTIVITIES. PRIOR TO THE COMMENCEMENT OF MAINTENANCE ACTIVITIES DURING THE BREEDING SEASON, AREAS RESTRICTED FROM SUCH ACTIVITIES SHALL BE STAKED OR FENCED UNDER THE SUPERVISION OF A QUALIFIED BIOLOGIST; OR

3. AT LEAST TWO WEEKS PRIOR TO THE COMMENCEMENT OF MAINTENANCE ACTIVITIES, UNDER THE DIRECTION OF A QUALIFIED ACOUSTICIAN, NOISE ATTENUATION MEASURES (e.g., BERMS, WALLS) SHALL BE IMPLEMENTED TO ENSURE THAT NOISE LEVELS RESULTING FROM MAINTENANCE ACTIVITIES WILL NOT EXCEED 60 dB(A) HOURLY AVERAGE AT THE EDGE OF HABITAT OCCUPIED BY THE COASTAL CALIFORNIA GNATCATCHER. CONCURRENT WITH THE COMMENCEMENT OF MAINTENANCE ACTIVITIES AND THE MAINTENANCE OF NECESSARY NOISE ATTENUATION FACILITIES, NOISE MONITORING* SHALL BE CONDUCTED AT THE EDGE OF THE OCCUPIED HABITAT AREA TO ENSURE THAT NOISE LEVELS DO NOT EXCEED 60 dB(A) HOURLY AVERAGE. IF THE NOISE ATTENUATION TECHNIQUES IMPLEMENTED ARE DETERMINED TO BE INADEQUATE BY THE QUALIFIED ACOUSTICIAN OR BIOLOGIST, THEN THE ASSOCIATED MAINTENANCE ACTIVITIES SHALL CEASE UNTIL SUCH TIME THAT ADEQUATE NOISE ATTENUATION IS ACHIEVED OR UNTIL THE END OF THE BREEDING SEASON (AUGUST 16).

* Maintenance noise shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the maintenance activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. If not, other measures shall be implemented in consultation with the biologist and the ADD environmental designee, as necessary, to reduce noise levels to below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. Such measures may include, but are not limited to, limitations on the placement of maintenance equipment and the simultaneous use of equipment.

- b. IF COASTAL CALIFORNIA GNATCATCHERS ARE NOT DETECTED DURING THE PROTOCOL SURVEY, THE QUALIFIED BIOLOGIST SHALL SUBMIT SUBSTANTIAL EVIDENCE TO THE CITY MANAGER AND APPLICABLE RESOURCE AGENCIES WHICH DEMONSTRATES WHETHER OR NOT MITIGATION MEASURES SUCH AS NOISE WALLS ARE NECESSARY BETWEEN MARCH 1 AND AUGUST 15 AS FOLLOWS:
 1. IF THIS EVIDENCE INDICATES THE POTENTIAL IS HIGH FOR COASTAL

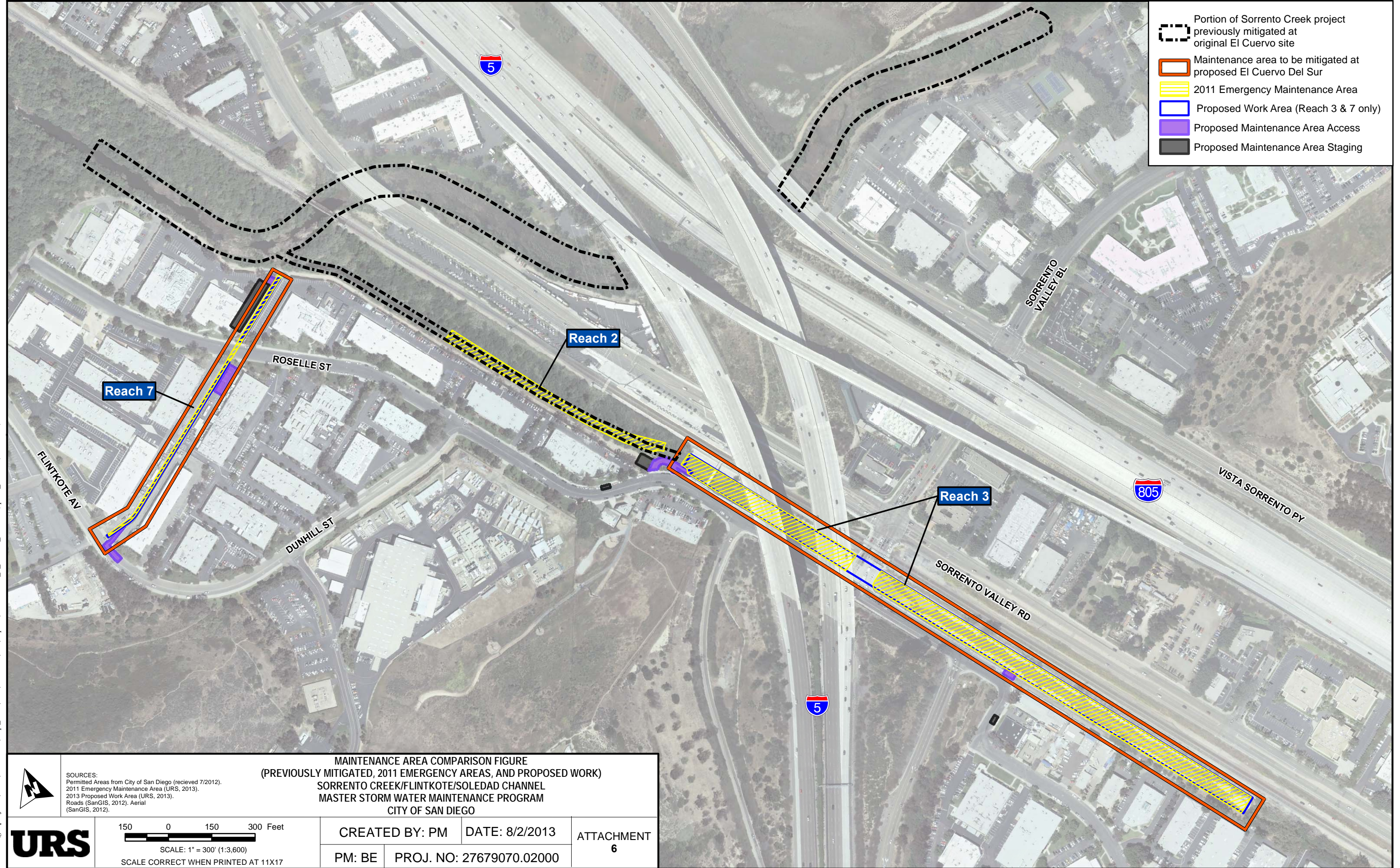
CALIFORNIA GNATCATCHER TO BE PRESENT BASED ON HISTORICAL RECORDS OR SITE CONDITIONS, THEN CONDITION A.III SHALL BE ADHERED TO AS SPECIFIED ABOVE.







2. IF THIS EVIDENCE CONCLUDES THAT NO IMPACTS TO THIS SPECIES ARE ANTICIPATED, NO MITIGATION MEASURES WOULD BE NECESSARY.

Attachment 5 – Plant Species List

Plant Species List			
Scientific Name	Common Name	Reach 3	Reach 7
<i>Acacia</i> spp.	acacia	present	-
<i>Apium graveolens</i>	celery	present	present
<i>Arundo donax</i>	giant reed	present	-
<i>Avena fatua</i>	wild oat	present	-
<i>Baccharis pilularis</i>	coyote brush	-	present
<i>Baccharis salicifolia</i>	mulefat	present	present
<i>Callistemon</i> sp.	bottlebrush	present	-
<i>Conyza</i> sp.	horseweed	-	present
<i>Cortaderia selloana</i>	pampas grass	present	present
<i>Cotula coronopifolia</i>	brass buttons	-	present
<i>Cucurbita</i> sp.	gourd	present	-
<i>Cyperus involucratus</i>	umbrella plant	present	-
<i>Cyperus</i> sp.	flatsedge	-	present
<i>Eleocharis</i> sp.	spikerush	present	present
<i>Epilobium ciliatum</i>	fringed willowherb	present	present
<i>Geranium dissectum</i>	cranesbill	present	-
<i>Helminthotheca echioides</i>	bristly ox-tongue	present	-
<i>Heteromeles arbutifolia</i>	toyon	-	present
<i>Juncus acutus</i>	spiny rush	present	-
<i>Juncus mexicanus</i>	Mexican rush	present	-
<i>Juncus</i> sp.	rush	-	present
<i>Lactuca serriola</i>	prickly lettuce	-	present
<i>Lepidium latifolium</i>	perennial pepperweed	present	-
<i>Leptochloa fusca</i> ssp. <i>uninervia</i>	sprangletop	-	present
<i>Malva</i> sp.	mallow	present	-
<i>Melilotus</i> sp.	sweet clover	present	present
<i>Nasturtium officinale</i>	watercress	present	present
<i>Nicotiana glauca</i>	tree tobacco	-	present
<i>Oenothera elata</i>	Hooker's evening primrose	-	present
<i>Platanus racemosa</i>	western sycamore	present	-
<i>Pluchea odorata</i>	marsh fleabane	present	present
<i>Polygonum</i> sp.	knotweed	present	-
<i>Polypogon interruptus</i>	ditch beard grass	present	-
<i>Polypogon monspeliensis</i>	rabbitsfoot grass	present	-
<i>Ricinus communis</i>	castor bean	present	-
<i>Rumex crispus</i>	curly dock	-	present
<i>Rumex</i> sp.	dock	present	-
<i>Salix laevigata</i>	red willow	present	present
<i>Salix lasiolepis</i>	arroyo willow	present	present
<i>Sinapis arvensis</i>	charlock mustard	present	-
<i>Sonchus oleraceus</i>	sow thistle	-	present
<i>Typha</i> sp.	cattails	present	present
<i>Veronica</i> sp.	speedwell	-	present
<i>Washingtonia robusta</i>	Washington fan palm	present	present

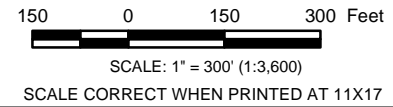
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-  Portion of Sorrento Creek project previously mitigated at original El Cuervo site
-  Maintenance area to be mitigated at proposed El Cuervo Del Sur
-  2011 Emergency Maintenance Area
-  Proposed Work Area (Reach 3 & 7 only)
-  Proposed Maintenance Area Access
-  Proposed Maintenance Area Staging

**MAINTENANCE AREA COMPARISON FIGURE
(PREVIOUSLY MITIGATED, 2011 EMERGENCY AREAS, AND PROPOSED WORK)
SORRENTO CREEK/FLINTKOTE/SOLEDAD CHANNEL
MASTER STORM WATER MAINTENANCE PROGRAM
CITY OF SAN DIEGO**

SOURCES:
Permitted Areas from City of San Diego (retrieved 7/2012).
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