

INDIVIDUAL BIOLOGICAL ASSESSMENT REPORT

Site Name/Facility: Sorrento Valley Channel Emergency Maintenance (Reaches 2 & 3)
Master Program
Map No.: 11 & 12
Date: August 10, 2016
Biologist Name/Cell
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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 2011) 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 emergency maintenance and concrete repair activities within the Sorrento (also known as Soledad Canyon) Creek Channel (MMP Maps 11 & 12; Figures 1-3) in order to comply with the MMP's Programmatic Environmental Impact Report (PEIR). 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 determined whether or not sensitive biological resources could be affected by the proposed maintenance within each of the maintenance and construction areas 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 Locations and Description

The Sorrento Valley Reach 2 channel is an earthen channel which is located directly downstream to the northwest of the Reach 3 concrete-lined channel. Emergency sediment and vegetation occurred at the confluence where the Reach 2 & 3 channels meet in an approximately 423 linear foot section (Area 1). The repair of the concrete channel lining in Reach 3 occurred southeast of Sorrento Valley Boulevard and just east of Roselle Street in the upstream end of the channel (Area 2). An additional area, upstream of Reach 3 (Area 3), was also impacted in order for the cut off wall to be replaced and a temporary water diversion berm to be installed to prevent flows from entering Area 2 during the concrete lining repair. Both the Reach 2 and Reach 3 channels are located within the City of San Diego's appealable area of the Coastal Overlay Zone; Torrey Pines Community Planning Area; Council District 1; Los Peñasquitos Creek watershed

Area 1

The purpose of the project within Area 1 was to remove sediment and vegetation that had built up within the Sorrento Valley Channels (Reaches 2 & Reach 3; Figure 3a) and was constricting capacity and had caused the flooding of adjacent roadways and properties during past rain events.

City crews were called out in January 2016 to clean the surrounding area (streets, bus turnaround, etc...) of sediment and debris that had overflowed from the channel and been deposited on Roselle St. during a prior rain event. Observations on February 5, 2016 noted significant sediment and vegetation build up within the proposed emergency maintenance area (Figure 3a), particularly within the Reach 2 & Reach 3 transition area where the Reach 3 concrete-lined channel meets the Reach 2 earthen bottom channel. There was severe flooding of these

channel sections, the surrounding businesses, and City infrastructure during heavy storms on January 7, 2016. This flooding overran several cars in the area and flooded Roselle St. up to 4 feet in height (property owner video evidence). In an analysis conducted by ESA of the projected flooding risk before and after this proposed emergency maintenance, it was concluded that the removal of this sediment and vegetation (Figure 3a) would minimize the risk of overtopping and flooding of the channel, whereas the current conditions and channel capacity would likely result in additional flooding of adjacent properties during future forecasted storm events. With the prediction of continued El Nino patterns and heavy winter storms, the City determined that the commercial properties and City infrastructure adjacent to this channel were under imminent threat of further damage from storm flows, given the current condition of the channel.

This length of Area 1 is a combination of trapezoidal concrete-lined channel (Reach 3; Figure 3) and earthen-bottom channel (Reach 2; Figure 3). A diversion berm was installed at the downstream extent of the maintenance within Reach 2 (Figure 3) to prevent sediment and any incidental flow from the project from travelling downstream. An earthen berm was also built at the upstream end of the work area using existing sediment within the channel to prevent downstream flows from entering the work area. Flows were diverted around the work area from above the upstream earthen berm using a highline pump system and filter bag. The single, linear length of channel cleared during this emergency maintenance extended from the downstream berm in Reach 2 where sediment and vegetation build up began, southeast approximately 524 feet into the Reach 3 concrete-lined channel just northwest of Sorrento Valley Blvd. (Figure 3a). The earthen transition channel section in Reach 2 has an average bottom width of approximately 49 feet and the concrete-lined Reach 3 section has an average bottom width of approximately 63 feet. Emergency maintenance of the channel included the removal of all existing vegetation within the proposed work area as well as removal of sediment from Reach 3.

Land covers and vegetation removed during maintenance in Reach 2 included 0.08 acre of disturbed freshwater marsh (earthen bottom), 0.02 acre of open water (earthen bottom), and 0.06 acre of riparian scrub (southern willow scrub). Total impacts to jurisdictional areas in the Reach 2 channel were 0.16 acre (213 linear feet) of wetland and non-wetland waters of the U.S.

Land covers and vegetation removed during maintenance in Reach 3 included 0.14 acre of developed concrete-lined channel, 0.28 acre of freshwater marsh (concrete-lined). Total impacts to jurisdictional areas in the Reach 3 channel were 0.42 acre (311 linear feet) of wetland and non-wetland waters of the U.S.

Diversion berms and pumps were used to bypass downstream flows around the emergency maintenance area from upstream of the Reach 3 channel to a point where positive flows enabled the jobsite to be sufficiently dried out.

Equipment used for this work included a Loader, Dozer, and Excavator. This equipment utilized the access/staging area just east of Roselle at the bus turnaround in order to access the Reach 2 and Reach 3 channels (Figure 3). Due to the accumulation of sediment, it was necessary to use the smaller Tracksteer or Bobcat to clear material from beneath the pedestrian bridge just southeast of the Reach 2 & 3 transition area (Figure 3).

Area 2

Assessments by City crews on March 8, 2016 determined the concrete-lining in Area 2 had been severely compromised by past storm events and was causing a severe reduction of channel capacity. This reduction in capacity was increasing after each storm event through the erosion of sediment beneath the channel that had been exposed and by further degradation of the channel. This compromise of the concrete-lining, combined with flooding events that occurred downstream in January 2016 and the El Nino pattern present during the 2015-2016 storm season, resulted in a high risk of flooding of adjacent businesses and property.

Concrete repair in Area 2 was limited to an approximately 397-foot long section of developed concrete-lined channel (0.57 ac) at the southwestern end of the Reach 3 channel. This concrete repair and cut off wall replacement occurred using a concrete saw, Backhoe, Dozer, Bobcat/Tracksteer, Excavator, and dump trucks or similar type equipment to break up and load the damaged cut off wall and concrete lining into dump trucks, which accessed the channel at access/staging area designated on the maintenance plans. The staging areas for this channel maintenance occurred along the southeast end of Roselle St. as shown on Figure 3. A concrete laser screed and

concrete conveyor truck were used to install new concrete lining in place and fill voids in the existing Reach 3 channel slope that were created by erosion that occurred as a result of runoff from the adjacent parking lot. Land cover impacted within Reach 3 (Area 2) during maintenance included 0.57 acre of developed concrete-lined channel. Total impacts to jurisdictional areas are 0.57 acre (397 linear feet) of wetland and non-wetland waters of the U.S. The proposed work area was not located in The City of San Diego's Multi-Habitat Planning Area (MHPA). The impacts within Reach 3 (Area 2) are within areas previously authorized for maintenance.

Area 3

As part of the concrete repair, impacts were necessary in the earthen channel directly upstream of Reach 3 (Area 3) in order to remove the old cut off wall and install the new wall as well as to install the temporary earthen diversion berm. Land covers and vegetation removed within Area 3 during maintenance and repair activities included 0.006 acre of natural flood channel, 0.003 acre of disturbed wetland (Arundo-dominated) and 0.03 acre of riparian scrub (southern willow scrub). Total impacts to jurisdictional areas are 0.039 acre (27 linear feet) of wetland and non-wetland waters of the U.S.

All maintenance and concrete repair work that occurred in Areas 1, 2, & 3 was monitored by a qualified biologist. All debris, sediment, and vegetation removed from the channel Areas were taken to the Miramar Landfill for disposal.

Survey Methods and Date

Biological Survey and Site Assessment

Dudek conducted a biological survey and site assessment of Area 1 on February 5, 2016 and of Areas 2 and 3 on March 8, 2016. The surveys were conducted on foot and the assessments were made from the channel bank. 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's "Guidelines for Conducting Biological Surveys" (2002). 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 freshwater marsh). 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 and monitoring are provided in this report. Protocol-level surveys were conducted for least bell's vireo (*Vireo bellii pusillus*) as a part of the site assessment in Area 3 prior to the initiation of construction activities since work was scheduled to occur in the breeding season of this species. A site-specific jurisdictional delineation was not performed as a part of this site assessment.

Monitoring of Emergency Maintenance

Area 1

Biologists Shelley Lawrence and Danielle Mullen monitored this emergency maintenance and began each maintenance day by conducting a pre-maintenance survey for Ridgeway's rail in the project area. One Ridgeway's rail was observed during the emergency maintenance and it was flushed out of the work area by the monitoring biologist, according to requirements in the USFWS Section 7; Biological Opinion. The crew entered the channel and began work southeast of the pedestrian bridge on the first day removing sediment and loading it to dump trucks on the cement access ramp. Crews then used two bobcats located on the upstream (southeast) side of the pedestrian bridge and the Loader was on the downstream (northwest) side of the bridge. The crew continued loading the sediment into dump trucks on the cement access ramp.

Multiple pumps were on-site and being used to pump water from behind an earthen berm just below the pedestrian bridge. The water was being let out downstream of the work site but upstream of the series of filtration dams. The series of silt fence and rockbag dams at the downstream diversion berm were checked for

efficacy. When water was seen passing outside the silt fence, a crew member was instructed to repair the dams and install additional silt fence and rock bags upstream of the existing ones for additional sediment filtration. Water also began to back up towards the work area upstream. To avoid the work area becoming too wet, a layer of straw wattles were laid down across the channel and reinforced with rockbags. The monitoring biologist suggested that additional silt fence and rockbags should be used for future dams, opposed to straw wattles.

Once the crew got close to finishing the removal of sediment within the channel the pump was turned off to allow the sediment within the water to settle out. Standing water had accumulated upstream of the diversion berm. Once the sediment settled, as much as feasible, the silt fencing was removed starting from the upstream end and working downstream. The last to be removed was the diversion berm at the downstream end. Water flowed downstream after removal but eventually reached an equilibrium and stopped. Lastly, the operator was then instructed to remove a small section of the upstream earthen berm to allow water to flow freely through the channel. This resulted in a gradual flow of clean (lacking sediment) water down the channel. The crew then swept up the job site, removed all tractors from the channel and parked them within the adjacent staging area and placed drip pans and straw wattles under each tractor. All equipment and temporary access and berm structures were removed from the channel following maintenance.

Areas 2 & 3

Biologists Thomas Dayton, Scott Gressard, Gregory Chapman, and Shelley Lawrence monitored this emergency maintenance and concrete repair work. Areas 2 & 3 and the vicinity were surveyed each day for Ridgway's rail, least Bell's vireo and any other nesting birds. No Ridgway's rail or least Bell's vireo were observed during maintenance or concrete repair activities.

The Granite crews began by constructing a temporary sediment access ramp in the northwest end of the project area (Area 2) within the existing concrete-lined Reach 3 channel using the remaining sediment in the channel. Any sediment not used for the access ramp was loaded into dump trucks and removed from the channel. Next, the crews laid down steel plates along the ramp and concrete channel to ensure that these were not damaged when equipment was entering and exiting the channel. Next, the crews installed a rock bag berm at the northwest end of Area 2 before they cleared the area southeast of the Reach 3 channel (Area 3) of vegetation and installed a temporary earthen berm out of material from the channel. After the earthen berm was in place, a pump diversion system was installed to divert flows around the concrete repair (Area 2). After the diversion berm was functioning, a new cut off wall was formed and installed at the upstream end of the concrete lining in Area 3. Crews then began breaking up the degraded concrete-lining section in Area 2 and prepared the channel for the new lining. The existing soil was replaced with an approved and more suitable base soil layer for the new concrete lining. Next, a fabric lining was installed over the new soil layer before the new lining area was framed and concrete was poured. After the concrete had cured and dried, a street sweeper was brought in to clean the channel before the temporary earthen berm was removed.

One large pump was used at the upstream end of Reach 3 for much of the maintenance. Water was pumped around Areas 2 & 3 through a hose system with a sediment filter bag at the end. The hose system emptied into the concrete channel just northwest of the access ramp and downstream of the rock bag berm. There were several times during maintenance when water levels rose within the repair area due to high flows and water passed beneath the upstream earthen berm. A second gas powered pump was brought in to assist in drying out the maintenance area.

All work was monitored by a qualified biologist. All equipment and temporary access and berm structures were removed from the channel following maintenance. The project biologist also visited the site following maintenance in order to determine the full extent of impacts in Area 3.

Biological Resources:

Stream Type: Perennial Intermittent Ephemeral

The Reach 2 & 3 channels are likely to have perennial flows during normal climactic conditions. Collected sediment, vegetation, and areas of damaged concrete in portions of the channels had impeded normal surface flow through obstruction/retention/impoundment of storm water during storm related events.

Vegetation

A total of four vegetation communities and five land cover types were identified during this assessment: natural flood channel, urban/developed, disturbed land, developed concrete-lined channel, disturbed freshwater marsh (earthen bottom), freshwater marsh (concrete-lined), open water, and riparian scrub (southern willow scrub). All impacts from the installation of the diversion berm in Area 3 will be temporary and all communities impacted will be returned to pre-maintenance conditions following the completion of work.

Vegetation acreages within the survey area are summarized in Table 1 below:

Table 1. Existing Vegetation and Land Covers in the Maintenance/Repair Areas

Vegetation Community or Land Cover Type	City MSCP Habitat Tier	Area 1 (acres)	Area 2 (acres)	Area 3 (acres)	Total
Natural Flood Channel	Wetland	0	0	0.006	0.006
Urban / Developed	IV	0.18	0	0	0.18
Disturbed Land	IV	0.10	0	0	0.10
Developed Concrete-lined Channel	IV*	0.14	0.57	0	0.71
Disturbed Freshwater Marsh (earthen bottom)	Wetland	0.08	0	0	0.08
Freshwater Marsh (concrete-lined)	Wetland	0.28	0	0	0.28
Disturbed Wetland (arundo dominated)	Wetland	0	0	0.003	0.003
Open Water	Wetland	0.02	0	0	0.02
Riparian Scrub (southern willow scrub)	Wetland	0.06	0	0.03	0.09
Total		0.86	0.57	0.039	1.469

*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).

Habitat within the emergency channel maintenance area is described below:

Natural Flood Channel

Where the study area is mapped as natural flood channel, the channel is almost completely clear of any vegetation and consists of sediment streambed. This land cover is located upstream of the planned concrete repair work area in the earthen channel where the earthen diversion berm was located (Area 3).

Developed

Developed land describes areas impacted by human construction, paving, structures and other impermeable surfaces that cannot support vegetation or habitat for species. This land cover is present in each of the project Areas in the access and fueling areas.

Disturbed Land

Where the site is mapped as disturbed land, the areas support scattered non-native grasses and weeds, but are mostly composed of large portions of bare ground due to extensive and repeated use. This land cover is found in the staging area west of Area 1.

Developed Concrete-Lined Channel

Where the study area is mapped as disturbed concrete-lined channel, the channel is composed of installed concrete lining and completely clear of any vegetation. This land cover is present through the entire length of Reach 3 (Areas 1&2).

Disturbed Freshwater Marsh (earthen-bottom)

Where habitat was mapped as disturbed freshwater marsh (earthen), the channel had areas of accumulated sediment with a <40% cover of Cattails (*Typha latifolia*) with other exotic species mixed in. This habitat occurs in the earthen transition section of Reach 2 just downstream of the Reach 3 channel (Area 1).

Freshwater Marsh (concrete-lined)

Where habitat was mapped as freshwater marsh (concrete-lined), the channel had areas of accumulated sediment with a dominant (>70%) cover of Cattails (*Typha latifolia*) with very few other species mixed in. This habitat occurs in the downstream section of the Reach 3 channel (Area 1).

Disturbed Wetland (arundo dominated)

Where habitat is mapped as disturbed wetland (arundo dominated), the maintenance area is dominated entirely by giant reed (*Arundo donax*). This habitat occurs in the earthen channel section upstream of Reach 3 where the temporary earthen berm was installed (Area 3).

Open Water

Where the study area is mapped as open water (earthen), the channel is virtually clear of any vegetation and consists of only standing or gently flowing water over the earthen-bottom channel within Reach 2 (Area 1).

Riparian Scrub (southern willow scrub)

Where habitat is mapped as riparian scrub (southern willow scrub), the channel canopy cover was dominated by approximately 80% cover of black willows (*Salix gooddingii*). This vegetation community is located within the Reach 2 earthen section of the emergency maintenance area and in the area upstream of the concrete repair work where the cut off wall and temporary earthen berm were installed (Areas 1&3).

Wildlife Value

Riparian scrub (southern willow scrub) and freshwater marsh communities can provide habitat for waterfowl and shorebirds. Although these communities are narrowly confined to the channel limits, this habitat does continue downstream of diversion berm location in the Reach 2 earthen channel (Area 1) as well as upstream of Reach 3 (Area 3) and has connectivity to other sections of habitat both upstream and downstream; therefore, its value to wildlife is moderate. Permanent impacts to vegetation that occurred as part of the emergency maintenance were limited to the minimum necessary to reduce the threat of flooding to the surrounding properties and all work was conducted during the breeding season of sensitive riparian bird species (i.e. Least Bell's vireo) was predicated by focused surveys. All temporary impacts to vegetation communities that occur as part of installation of the diversion berm will be restored to their pre-construction condition, therefore the construction is not expected to have a negative impact to wildlife value.

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

- American Crow (*Corvus brachyrhynchos*)
- Ridgway's rail (*Rallus obsoletus*) *
- Common Yellowthroat (*Geothlypis trichas*)
- Western sandpiper (*Calidris mauri*)
- Killdeer (*Charadrius vociferous*)
- House sparrow (*Passer domesticus*)
- Song sparrow (*Melospiza melodia*)
- Mallard (*Anas platyrhynchos*)
- House finch (*Haemorrhous mexicanus*)
- Red-shouldered Hawk (*Buteo lineatus*)
- African clawed frog (*Xenopus laevis*)

- Monarch (*Danaus plexippus*)
- California sister butterfly (*Adelpha californica*)
- Violet-green swallow (*Tachycineta thalassina*)
- Western tiger swallowtail (*Papilio rutulus*)

* San Diego MSCP covered species

Channel emergency maintenance occurred within the Reach 2&3 channels (Area 1) from March 4 to March 5, 2016 and the survey results and species encountered during the monitoring of that maintenance are included in this assessment. A formal nesting survey was conducted within three days of the start of construction to ensure no raptor species were nesting within or adjacent to the project site. No nests were found during the site visit. Ridgway's rail was briefly observed during channel maintenance activities at the downstream portion of Reach 3 and was flushed from the project area by the monitoring biologist, in accordance with the USFWS Section 7 Consultation; Biological Opinion. The work was not conducted during the breeding season of any other sensitive or avian species, therefore focused surveys were not conducted.

Emergency channel maintenance and concrete repair occurred within Reach 3 and the small earthen section upstream of Reach 3 (Areas 2&3) from April 9 to June 15, 2016. Since work occurred during the breeding season of sensitive and avian species, a nesting survey and focused protocol surveys for least bell's vireo were conducted prior to the start of maintenance and construction activities. No nests were detected in the project vicinity during pre-construction surveys, however a Killdeer nest was identified by the biological monitor on the west bank of the Reach 3 channel after work had begun. A buffer of approximately 25 feet was flagged around the nest and the biologist monitored the behavior of the birds. On June 3, 2016, no killdeer were observed incubating the one egg that remained in the nest for the second day in a row. The egg is likely nonviable, but not due to maintenance. The biological monitor removed the cones and tape that were serving as a boundary around the nesting area.

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

If yes, describe the influence:

Are there any conservation easements which have been previously recorded within the maintenance area?

Yes No

If yes, describe them and their purpose:

Jurisdictional Areas [TOTAL STUDY AREA]

ACOE/RWQCB/CDFW/CCC

For the Master Maintenance Program, a program-level jurisdictional delineation was not conducted within subject storm water facility channels and sedimentation basins with results categorized by HUs. Mapping was conducted along the access route, planned concrete repair area of the channel, and diversion berm location (Figure 3). State, Federal, and City jurisdictional areas within the study area consisted of disturbed freshwater marsh, freshwater marsh (concrete-lined), disturbed wetland (Arundo dominated), and riparian scrub (southern willow scrub).

A site-specific formal jurisdictional delineation of “waters of the United States,” including wetlands, under the jurisdiction of the ACOE, CDFW, RWQCB, and CCC was not conducted for the proposed maintenance area.

For purposes of this IBA, the emergency maintenance and concrete repair work area, with the exception of the diversion berm location in the upstream earthen channel, are assumed to be within the defined channel limits.

The emergency maintenance and concrete repair work impacted the full area within the channel. The impacts to Waters of the U.S., including to wetlands, and the corresponding impacts to City wetlands are shown in Table 2.

Table 2. Impacts to Jurisdictional Waters/Wetlands in Area 1

Vegetation Community or Land Cover Type	City MSCP Habitat Tier	Jurisdictional Acreage (ACOE, RWQCB, CDFW, and City)		Total
		Wetland Waters of the U.S.	Non-Wetland Waters of the U.S.	
Developed Concrete-lined Channel	IV*	0	0.14	0.14
Disturbed Freshwater Marsh (earthen bottom)	Wetland	0.08	0	0.08
Freshwater Marsh (concrete-lined)	Wetland	0.28	0	0.28
Open Water	Wetland	0.02	0	0.02
Riparian Scrub (southern willow scrub)	Wetland	0.06	0	0.06
Total		0.44	0.14	0.58

*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).

Table 3. Impacts to Jurisdictional Waters/Wetlands in Areas 2 & 3

Vegetation Community or Land Cover Type	City MSCP Habitat Tier	Jurisdictional Acreage (ACOE, RWQCB, CDFW, and City)		Total
		Wetland Waters of the U.S.	Non-Wetland Waters of the U.S.	

Natural Flood Channel	Wetland	0.006	0	0.006
Developed Concrete-lined Channel	IV*	0	0.57	0.57
Disturbed Wetland (arundo dominated)	Wetland	0.003	0	0.003
Open Water	Wetland	0.02	0	0.02
Riparian Scrub (southern willow scrub)	Wetland	0.06	0	0.06
Total		0.089	0.57	0.659
*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).				

Sensitive* Plant Species Observed:
Yes No
If yes, what species were observed and where? If yes, complete a California Native Species Field Survey Form and submit it to the California Natural Diversity Database.

* Sensitive species shall include those listed by state or federal agencies as well as species that could be considered sensitive under Sections 15380(b) and (c) and 15126(c) of the CEQA Guidelines.

Sensitive* Animal Species Observed/Detected:
Yes No
If yes, what species were observed/detected and where? If yes, complete a California Native Species Field Survey Form and submit it to the California Natural Diversity Database.

One Ridgeway's rail (*Rallus obsoletus*) was observed within the Reach 3 channel by the onsite biologist during emergency maintenance. In accordance with the approved permits, the bird was flushed out of the work area by the project biologist. The bird flew upstream beyond the Reach 3 channel and did not return to the work area for the duration of the maintenance. Proper agency notification of the observation was sent by the project biologist.

* 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.

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

If yes, describe which portions are within an MHPA:

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

Yes No

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

- | | |
|---|---|
| <input checked="" type="checkbox"/> Least Bell's vireo | <input type="checkbox"/> Riverside fairy shrimp |
| <input type="checkbox"/> Southwester willow flycatcher | <input type="checkbox"/> California least tern |
| <input type="checkbox"/> Arroyo toad | <input checked="" type="checkbox"/> Ridgeway's rail |
| <input type="checkbox"/> Coastal California gnatcatcher | <input type="checkbox"/> Western snowy plover |
| <input type="checkbox"/> San Diego fairy shrimp | <input type="checkbox"/> Other: _____ |

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

Moderate to High potential for Least bell's vireo – there is suitable riparian scrub (southern willow scrub) habitat within and adjacent to emergency maintenance Area 1. Although there is no willow habitat within the concrete repair area (Area 2), there is suitable willow habitat upstream of the Reach 3 channel (Area 3). Focused surveys for least bell's vireo were conducted prior to the start of maintenance in Areas 2 & 3 and no birds were detected. The willow habitat that was impacted by installation of the earthen diversion berm in Area 3 will be restored to its pre-project condition following construction.

No potential for willow flycatcher –not one willow plant within the channel. The concrete-lined channel consisted mostly of non-native vegetation.

No potential for Arroyo toad –no sandy soils –vegetation very dense with thick sediments.

No potential for California gnatcatcher – no upland habitat consisting of California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), Laurel sumac (*Malosma Laurina*),

No potential for fairy shrimp species – No vernal pools exist or mud puddles with potential for cysts

No potential for California least tern –No open sandy beach habitat or mudflats. No habitat exists within the channel. Non-native vegetation in the channel is extremely dense.

Moderate to High potential for Ridgeway's rail - habitat existed in the emergency maintenance Area 1 and this species was observed in the Reach 3 channel on March 4, 2016 and therefore is considered to have high potential to occur in the vicinity. Although no habitat exists within the concrete repair area (Area 2) because this species was observed in the downstream portion of Reach 3 channel on March 4, 2016 it is considered to have moderate potential to occur in the vicinity of Areas 2 & 3. Daily surveys for Ridgeway's rail were conducted during all maintenance to avoid any potential impacts to this species.

No potential for Western snowy plover- more likely to be found in bays, shores and estuaries. No habitat exists within the channel. Non-native vegetation in the channel is extremely dense.

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

Yes No

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

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

See Attachment 3 - CNDDDB Del Mar USGS 7.5 Min Quadrangle Search Results

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

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

In Area 1, emergency maintenance and installation of the downstream diversion berm within habitat in Reach 2 has the potential to disrupt wildlife movement in that area. However, due to the limited size and duration of the project work and also because a portion of the temporary impacts to native habitat (diversion berm location) were restored to pre-project conditions following construction, the project is not expected to disrupt the integrity of this habitat.

In Area 2, there is no native vegetation present and the concrete repair activities did not disrupt integrity of the habitat or wildlife movement in the area.

In Area 3, installation of the upstream diversion berm within the riparian scrub (southern willow scrub) habitat has the potential to disrupt wildlife movement in that area. However, due to the limited duration of the project work and because all temporary impacts to riparian scrub (southern willow scrub) will be restored to pre-project conditions following construction, the project is not expected to disrupt the integrity of this habitat.

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

If yes, provide justification:

No nests were found during the pre-maintenance nesting survey of Area 1 and its surroundings, which was conducted within three days of the start of maintenance.

In Areas 2&3, a pre-construction nesting survey and focused survey for least bell's vireo were conducted. No nests were observed in the project areas or vicinity during these surveys. However, a Killdeer nest was identified by the biological monitor on the west bank of the Reach 3 channel after work had begun. A buffer of approximately 25 feet was flagged around the nest and the biologist monitored the behavior of the birds. The eggs identified in the nest hatched and the fledglings were not impacted by maintenance.

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

Yes No

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

Since work occurred between January 15 (start of the raptor nesting season) and August 15, a pre-maintenance survey for active raptor nests was conducted by a qualified biologist in areas supporting suitable habitat. No nests were observed in any of the maintenance or concrete repair Areas.

In compliance with the USFWS Section 7 BO and Master Program PEIR Mitigation Measures 4.1.2 and 4.1.8, focused surveys were performed prior to and during maintenance and concrete repair in Areas 2&3 because noise levels were expected to exceed 60 dBA and work occurred during the breeding seasons for least Bell's vireo –

between March 15 and September 15. Also in compliance with the USFWS Section 7 BO, surveys were conducted prior to the start of maintenance each day during the breeding season of Ridgeway's rail – between March 15 and September 15.

Biological Resource Conditions (vegetation communities present, including adjacent uplands; general habitat quality/level of disturbance):

In Area 1, there was freshwater marsh vegetation within both the proposed concrete-lined and earthen-bottom emergency maintenance area. Within the downstream earthen section of Reach 2, where the diversion berm was located, the other native vegetation community present was riparian scrub (southern willow scrub). The riparian scrub (southern willow scrub) habitat did have connectivity to nearby native habitats downstream, which includes additional riparian scrub (southern willow scrub) and additional freshwater marsh, however these habitats are limited to the boundary of the earthen channel. Areas surrounding the channel are predominately urban/developed land cover, which consists of paved City streets, commercial development, and rail lines/station.

In Area 2, there is no vegetation within the concrete repair work area.

In Area 3, within the upstream earthen section where diversion berm was located, the only native vegetation community present was riparian scrub (southern willow scrub). There was also disturbed wetland (Arundo dominated), which is an exotic community, in this area. The riparian scrub (southern willow scrub) habitat does have connectivity to nearby native habitats upstream, which includes additional riparian scrub (southern willow scrub) and riparian forest, however these habitats are limited to the narrow boundary of the earthen channel. Additionally, all impacts to these vegetation communities that occurred through the installation of the diversion berm will be restored in place to their pre-project conditions. The areas surrounding the earthen channel are dominated by urban/developed land cover, which consists of paved City streets and commercial development.

MAINTENANCE IMPACTS

Emergency Maintenance Methodology

Methods:

The goal of this emergency maintenance was to remove sediment and vegetation, which was causing a reduction in channel capacity (Area 1), and to repair the degraded concrete lining in the southeastern section of Reach 3 (Areas 2&3) and prevent material from the lining from being carried downstream by heavy flows and causing a further reduction in channel capacity.

Equipment used for the work in Area 1 included a Loader, Dozer, and Excavator. This equipment utilized the access/staging area just east of Roselle at the bus turnaround in order to access the Reach 2 and Reach 3 channels (Figure 3). Due to the accumulation of sediment, it was necessary to use the smaller Tracksteer or Bobcat to clear material from beneath the pedestrian bridge just southeast of the Reach 2 & 3 transition area (Figure 3). The debris was then loaded into dump trucks in the Reach 3 concrete-lined channel using the Dozer and Excavator and taken to the Miramar Landfill for disposal. All work was monitored by a qualified biologist and equipment will be removed from the site at the end of the project.

Following the installation of the temporary access ramp and diversion berm (Area 3), the concrete maintenance and repair in Area 2 began using a concrete saw, Backhoe with breaker, Dozer, Bobcat/Tracksteer, Excavator, water trucks, and dump trucks or similar type equipment to break up and load the damaged cut off wall and concrete lining into the dump trucks, which accessed the channel at sediment access/staging area location designated on the maintenance plans. The dump trucks then disposed of the accumulated materials at an appropriate disposal facility. A concrete laser screed and concrete conveyor truck were used to install new concrete lining in place and fill voids in the existing Reach 3 channel slope that were created by erosion that occurred as a result of runoff from the adjacent parking lot. A diversion pumping system was installed that ran 24 hours a day to ensure that water did not flow through the work area. Gas-powered pumps and hoses were used as necessary to divert downstream flows around or out of the concrete repair work area.

All work was monitored by a qualified biologist and all equipment and materials were removed following completion of work.

Vegetation Impacts:

(See Tables 2 & 3 above)

Jurisdictional Impacts:

(See Tables 2 & 3 above)

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

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

None of the maintenance or concrete repair Areas were within or adjacent to the City's MHPA.

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

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"/> Southwester willow flycatcher | <input type="checkbox"/> California least tern |
| <input type="checkbox"/> Arroyo toad | <input checked="" type="checkbox"/> Ridgeway's rail |
| <input type="checkbox"/> Coastal California gnatcatcher | <input type="checkbox"/> Western snowy plover |
| <input type="checkbox"/> San Diego fairy shrimp | <input type="checkbox"/> Other: _____ |

While there was a moderate to high potential for Least bell's vireo to occur within and adjacent to Areas 1 & 3, this species was not detected during the any of the full days of biological monitoring observations conducted prior to and during maintenance activities and was also not detected during the pre-construction focused surveys conducted within and surrounding Area 3. Ridgeway's rail also had a moderate to high potential to occur in Areas 1, 2, & 3 and was observed in Area 1 during maintenance. However, the bird was flushed from the maintenance area and no other Ridgeway's rails were observed during any maintenance or concrete repair activities.

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.

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, 4.3.5, 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.

Applicable PEIR Mitigation Measures have been included in their entirety in Attachment 1.

*It should be noted that, since this channel work was conducted as emergency maintenance, some requirements in the PEIR were not directly adhered to due to the need to conduct the work in as quickly a manner as possible in order to reduce the existing threat from flooding to adjacent properties.

Other mitigation measures:

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):

Area 1

Within Area 1, all work was limited to sediment and vegetation within the Reach 2 and Reach 3 channels. As discussed above, vegetation and sediment removal (i.e., channel maintenance) was previously authorized within both reaches, with associated mitigation requirements.

The City issued permits for emergency maintenance of Reach 2 in 2011 and previously in 2000. The current impacts to 0.08 acre of disturbed freshwater marsh (earthen bottom), 0.06 acre of riparian scrub (southern willow scrub), and 0.02 acre of open water are within the same footprint as the emergency maintenance that occurred in 2011. Vegetation conditions are similar those conditions identified in the previous approvals. Previous approvals required mitigation for impacts in this section through the completion of the El Cuervo Wetland Mitigation Project. The attached Current Condition Verification Report (Dudek September 2013) is provided for your reference.

Mitigation for impacts within Reach 3 was established by emergency maintenance that occurred within the channel in 2011 and by the January 2014 SCR approval for the initial maintenance under the MMP. The current impacts to 0.14 acre of developed concrete-lined channel and 0.28 acre of freshwater marsh (concrete-lined) are within the same footprint as the original approval. Only minor regrowth of freshwater marsh had occurred since the last authorization channel maintenance event in March 2015. Mitigation for impacts to Reach 3 is currently being implemented at the El Cuervo del Sur Wetlands Establishment Project and the Los Penasquitos Canyon Wetlands Enhancement Project.

These mitigation projects provide mitigation for USACE/RWQCB/CDFW/CCC/City jurisdictional wetlands in accordance with various permit requirements.

Area 2

Concrete repair activities within developed concrete-channel in Area 2 did not impact any vegetation communities and do not require mitigation.

Area 3

Installation of the diversion berm in Area 3 resulted in permanent impacts. Permanent impacts to native vegetation (riparian scrub – southern willow scrub; approximately 0.03 acre) will be mitigated at a ratio of 3:1 (in accordance with the SDP and CDP requirement). This mitigation (estimated as 0.09 acre) will occur either onsite through the removal and control of *Arundo* or offsite through the purchase of mitigation credits or mitigation project acreage allocation. Impacts to natural flood channel are considered temporary and mitigated at a ratio of 1:1 through onsite restoration within the impact area.

Mitigation Description/Location

Within Area 3, on-site restoration of impacted riparian scrub (southern willow scrub) sections of channel to the pre-project conditions by planting cuttings taken from nearby upstream willow trees. Restoration in Area 3 may also include enhancement of existing adjacent wetlands through the removal and control of existing stands of Arundo. A restoration plan will be prepared as part of the post-project reporting and will provide information on the methods of removal and follow-up treatment, as well as performance standards that are consistent with the City’s Biology Guidelines within the Coastal zone. The restoration plan will need to demonstrate that at least a 1:1 portion of the mitigation will be provided for new riparian habitat.

Additionally, the City may choose to utilize offsite mitigation through the purchase of credits from an approved bank or allocation of acreage within an approved permittee-responsible mitigation project. The City currently has approval for two mitigation projects in the watershed: El Cuervo del Sur Wetlands Establishment project and the Los Peñasquitos Wetlands Enhancement project. Initial phases of both projects are currently in construction.

ADDITIONAL COMMENTS OR RECOMMENDATIONS

Attachments

Attachment 1: Applicable PEIR Mitigation Measures

Attachment 2: Current Condition Verification Report (Dudek 2013)

Attachment 3: CNDDDB Del Mar USGS 7.5-Minute Quadrangle Search Results

References

Developmental Services Department (DSD) Notice of Exemption (NOE); Emergency Project (Section 21080(b)(4); 15269(b) &(c)

Regional Water Quality Control Board (RWQCB) Attachments D&E

Army Corps of Engineers (ACOE) Regional General Permit 63 Emergency; SPL-2015-00900-WSZ

California Dept. of Fish and Wildlife (CDFW) Lake or Streambed Alteration Agreement (1600); Notification of Emergency Work

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

Holland, R.F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. California Department of Fish and Game, Sacramento, California.

SITE PHOTOS – See separate Photo Report

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 not applicable)

(Mitigation Measure 4.3.3 not applicable)

(Mitigation Measure 4.3.4 not applicable)

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 not applicable)

(Mitigation Measure 4.3.10 not applicable)

(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 not applicable)

(Mitigation Measure 4.3.15 not applicable)

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)_{Leq} 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).

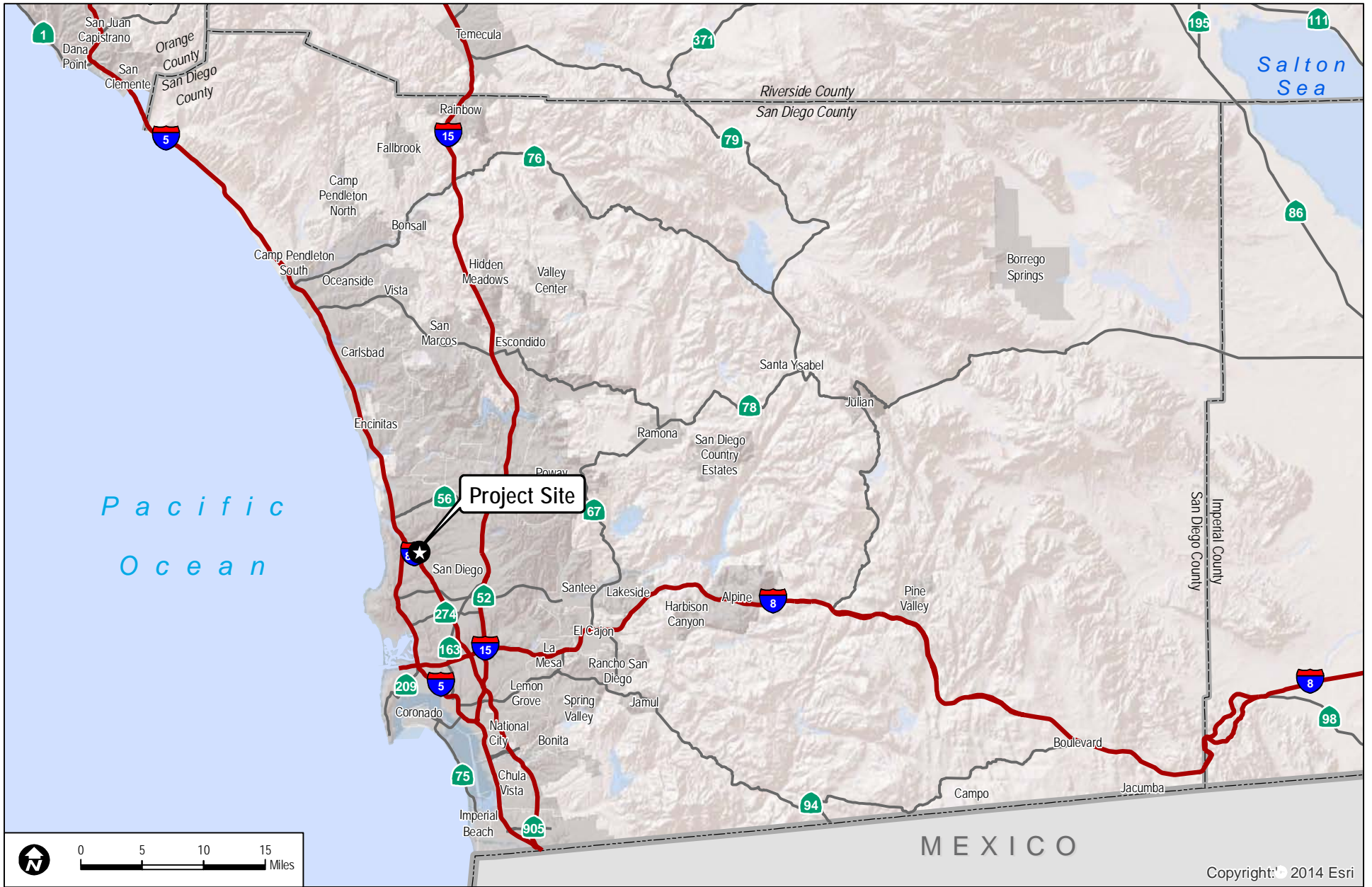
* Maintenance noise shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the maintenance activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 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.

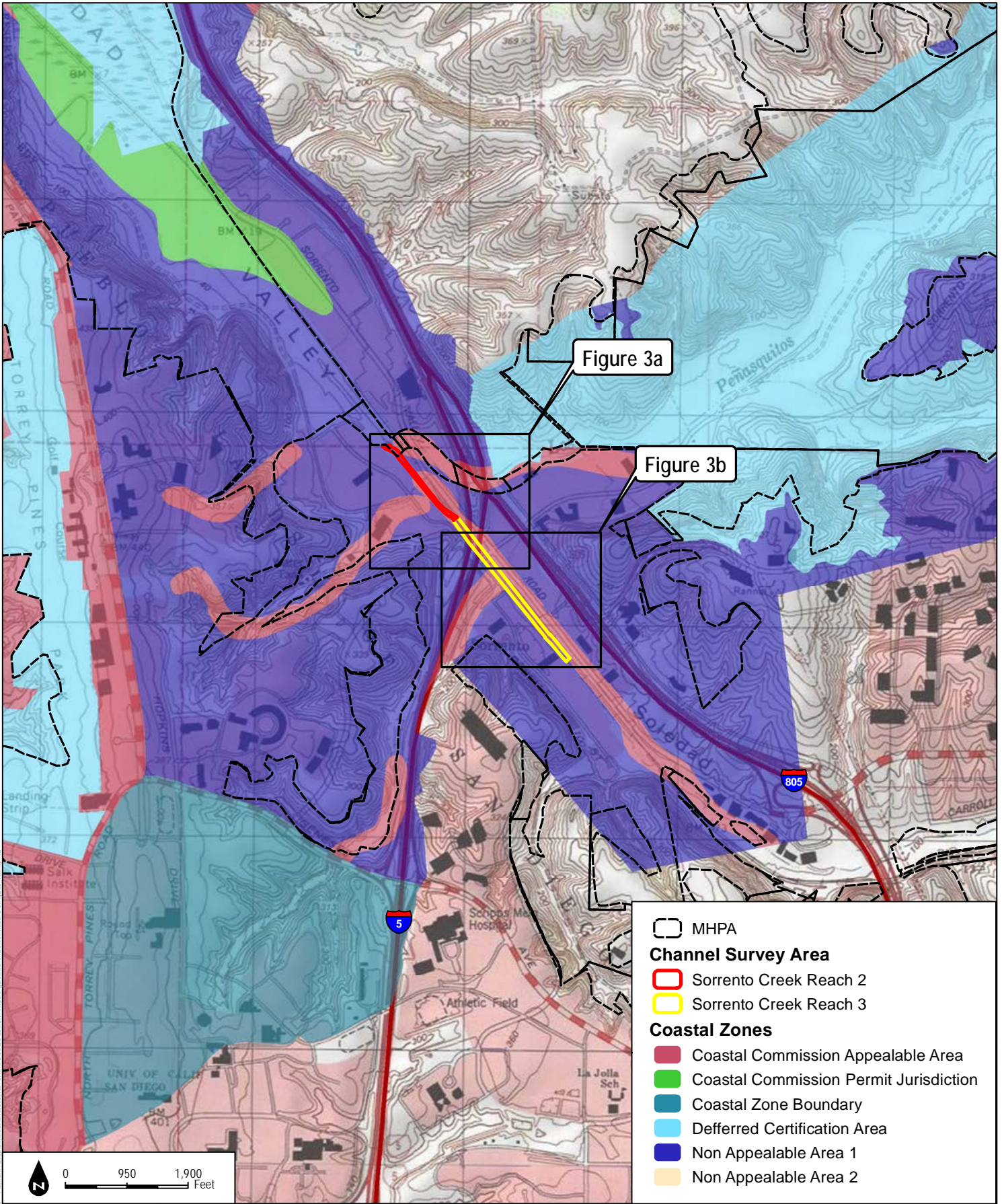


DUDEK

Sorrento Valley 2016 Emergency Channel Maintenance (Reaches 2-3)

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FIGURE 1
Regional Map



- MHPA
- Channel Survey Area**
- Sorrento Creek Reach 2
- Sorrento Creek Reach 3
- Coastal Zones**
- Coastal Commission Appealable Area
- Coastal Commission Permit Jurisdiction
- Coastal Zone Boundary
- Deferred Certification Area
- Non Appealable Area 1
- Non Appealable Area 2

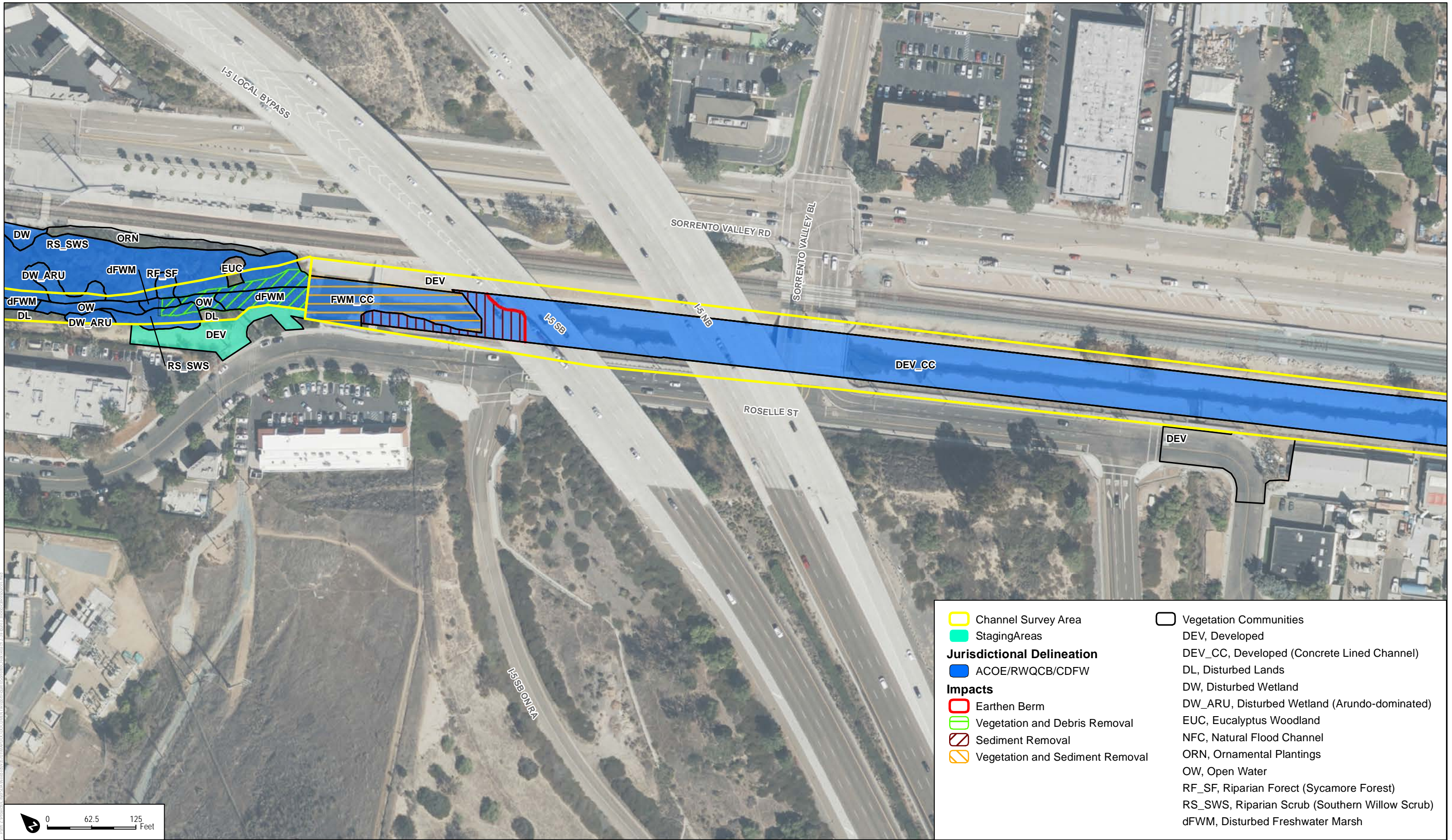
0 950 1,900 Feet

SOURCE: USGS 7.5-Minute Series - Del Mar Quadrangle; SANGIS, 10/25/2003; California Coastal Commission, 2012.

FIGURE 2
Vicinity Map



Sorrento Valley 2016 Emergency Channel Maintenance (Reaches 2-3)



Channel Survey Area	Vegetation Communities
Staging Areas	DEV, Developed
Jurisdictional Delineation	DEV_CC, Developed (Concrete Lined Channel)
ACOE/RWQCB/CDFW	DL, Disturbed Lands
Impacts	DW, Disturbed Wetland
Earthen Berm	DW_ARU, Disturbed Wetland (Arundo-dominated)
Vegetation and Debris Removal	EUC, Eucalyptus Woodland
Sediment Removal	NFC, Natural Flood Channel
Vegetation and Sediment Removal	ORN, Ornamental Plantings
	OW, Open Water
	RF_SF, Riparian Forest (Sycamore Forest)
	RS_SWS, Riparian Scrub (Southern Willow Scrub)
	dFWM, Disturbed Freshwater Marsh

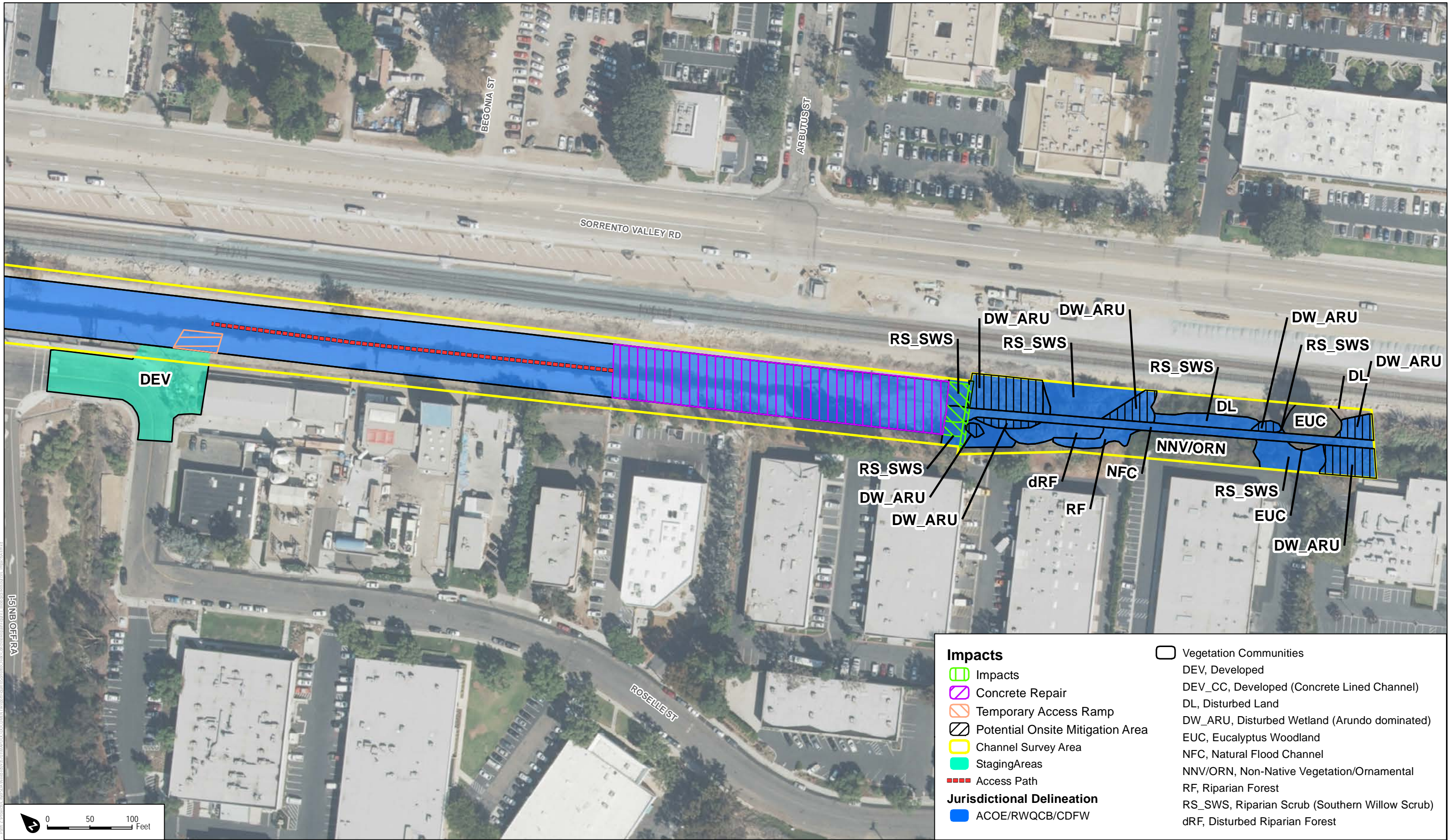
0 62.5 125 Feet

SOURCE: SANDAG Imagery, 2016.



Sorrento Valley 2016 Emergency Channel Maintenance (Reaches 2-3)

FIGURE 3A
Biological Resources and Impacts (Area 1)



Impacts		Vegetation Communities
Impacts		DEV, Developed
Concrete Repair		DEV_CC, Developed (Concrete Lined Channel)
Temporary Access Ramp		DL, Disturbed Land
Potential Onsite Mitigation Area		DW_ARU, Disturbed Wetland (Arundo dominated)
Channel Survey Area		EUC, Eucalyptus Woodland
Staging Areas		NFC, Natural Flood Channel
Access Path		NNV/ORN, Non-Native Vegetation/Ornamental
Jurisdictional Delineation		RF, Riparian Forest
ACOE/RWQCB/CDFW		RS_SWS, Riparian Scrub (Southern Willow Scrub)
		dRF, Disturbed Riparian Forest

SOURCE: SANDAG Imagery, 2016.



Sorrento Valley 2016 Concrete Repair (Reach 3)

FIGURE 3B
Biological Resources and Impacts (Areas 2&3)