

INDIVIDUAL BIOLOGICAL ASSESSMENT REPORT

Site Name/Facility:	<u>Cottonwood Channel Emergency Maintenance</u>
Master Program	
Map No.:	<u>120 & 121</u>
Date:	<u>February 10, 2016</u>
Biologist Name/Cell	<u>Scott Gressard (858-997-6874), Shana Carey (760-334-1993), and Paul</u>
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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 activities within the Cottonwood Channel (Attachment 2 - MMP Maps 120 & 121; Figures 3a & 3b) in order to comply with the MMP's Programmatic Environmental Impact Report (PEIR) (Attachment 1). 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 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.

It should be noted that, since this channel work was conducted as emergency maintenance, certain requirements in the MMP were not directly adhered to in order to conduct the work as quickly as possible and reduce the existing threat from flooding to adjacent properties.

Project Location and Description

The Cottonwood channel is an unnamed tributary to Chollas Creek and part of Hydrologic Unit Basin Number 8.31. This emergency maintenance area is generally located just east of the Interstate 5 freeway in National City off Cottonwood Street and Nordica Avenue and is not within or adjacent to the City's Multiple Species Conservation Program (MSCP) Multi-Habitat Planning Area (MHPA) or the City's Coastal Overlay Zone.

Sediment and large exotic vegetation (i.e., palms, fountain grass, etc.) loosely rooted in small cracks in the concrete lining had accumulated upstream along the Cottonwood Channel (Attachment 2 - MMP Map 120; Figure 3a). This exotic vegetation was causing an imminent threat to properties adjacent and downstream of the channel from the high flood risk it posed through potential clogging of downstream culverts if these large plants were dislodged during heavy flows as well as by an overall reduction in capacity of the channel. The majority of the trapezoidal and concrete-lined channel (Attachment 2 - MMP Maps 120 & 121; Figures 3a & 3b) was maintained as part of this emergency maintenance. Maintenance began just west of 43rd Street/North Highland Avenue and extends 2,216 feet west to the inlet east of Osborn St. that runs under the street. The channel has an average bottom width of approximately 11 feet. Land covers and vegetation impacted as part of this maintenance included 1.08 acres of developed concrete-lined channel, 0.06 acres of riparian scrub (disturbed southern willow scrub; concrete-lined), 0.06 acres of disturbed freshwater marsh (concrete-lined), and 0.03 acres of disturbed wetland (palm dominated; concrete-lined). Total impacts to jurisdictional areas were 1.23 acres (2,216 linear feet) of non-wetland waters of the U.S. An additional 0.02 acres (no additional linear feet) of disturbed wetland

(Arundo-dominated) is located above the Ordinary High Water Mark, under CDFW-jurisdiction, and was not removed as part of this maintenance.

Survey Methods and Date

Biological Survey and Site Assessment

Dudek conducted the biological survey and site assessment on November 11, 2015. The survey was conducted on foot and the assessment was 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 not conducted as a part of this site assessment. A site-specific jurisdictional delineation was not performed as a part of this site assessment.

Monitoring of Emergency Maintenance

December 27, 2015: Biologist Paul Lemons arrived at 2010 43rd Street, San Diego CA at 7:00 am on Sunday December 27, 2015. The City crew began cutting all larger trees (i.e., Mexican fan palms and a few willows) within the channel. City crews used a bobcat in the concrete channel to clear sediment and vegetation. The bobcat was picked up by the excavator and lowered into the channel. All sediment and vegetation was pushed to one area where the excavator parked in the staging area loaded it into dump trucks. The excavator did not enter the channel. City crews also cleared vegetation along the channel banks by hand and dropped it into the channel bed for the bobcat to push over to the excavator. Approximately half of the upstream portion of the channel between 43rd Street and 42nd Street was cleaned. No work was conducted outside of the project limits. Rock bags were used at the downstream end of this portion of the channel to prevent sedimentation downstream.

December 29, 2015: Biologist Shana Carey arrived at 2010 43rd Street, San Diego, CA at 7:00 am on Tuesday December 29, 2015. City crews picked up the bobcat with an excavator and lowered it into the channel. They then used the bobcat in the concrete channel to continue clearing sediment and vegetation between 42nd and 43rd street. Urban Corp. of San Diego arrived at approximately 8:00 am to assist and cleared vegetation along the channel banks by hand with hand tools, then dropped the vegetation into the channel bed for the bobcat to push over to the excavator. All sediment and vegetation were pushed to one area where the excavator loaded it into dump trucks. The excavator did not enter the channel. City crews cleaned out the portion of the channel between 43rd and 42nd Streets. No work was conducted outside of the project limits. Rock bags were placed downstream from 43rd street right before crossing under 42nd street to prevent sediment and excess water from running further downstream.

December 30, 2015: Biologist Shana Carey arrived at 2010 43rd St, San Diego, CA at 7:00 am on Wednesday December 30, 2015. City crews picked up the bobcat with an excavator and lowered it into the channel from the staging area along Cottonwood Street. The bobcat began clearing sediment and vegetation (from 42nd Street to 40th Street) and pushed it to the excavator. The excavator loaded it into dump trucks. The excavator did not enter the channel. Around 8:00 am Urban Corp. of San Diego arrived and began clearing the channel and channel banks by hand with hand tools and then dropped sediment and vegetation into the channel for the bobcat to push to the excavator. By late morning, the tree trimmers arrived and spent several hours trimming back trees hanging over the channel. By noon, the portion of the channel from 42nd to 40th Streets was nearly clear of sediment and vegetation. Urban Corp. of San Diego then began clearing by hand with hand tools the small portion of the channel west of 40th street. The bobcat ran over a nail soon after, so City work was put on hold until the tire was fixed. Soon after it was fixed, work resumed for a short time but the bobcat suffered another flat tire. Despite two flat tires, City crews managed to clean out the majority of the sediment and vegetation in the channel between 42nd and 40th Streets. Rock bags are still in place downstream of 43rd street/right before

crossing under 42nd street to prevent sedimentation downstream. An increase in water flow caused a small pump to be brought in today to transfer excess water into a nearby manhole to prevent water and sediment from flowing over rock bags. By the end of the day, the water flow had greatly decreased and the pump was no longer needed.

December 31, 2015: Biologist Shana Carey arrived at 2010 43rd Street, San Diego, CA at 7:00 am on Thursday December 31, 2015. When City crews arrived, they finished clearing the tiny section of channel immediately west/downstream of 40th Street. Shortly after, Urban Corp. of San Diego and a tree trimming crew arrived to begin clearing the last remaining downstream section of the channel (perpendicular to Osborn Street). The City joined them immediately after clearing the tiny section of channel west of 40th street. The crew members used hand tools and power tools, including chainsaws to remove large pieces of vegetation from the last remaining downstream section of the channel. City crews used a bobcat in the concrete channel to clear sediment and vegetation. All sediment and vegetation were pushed to one area where the excavator was used to load it into dump trucks. The excavator did not enter the channel. Urban Corp. also cleared vegetation along the channel by hand and dropped it into the channel for the bobcat to push to the excavator. No work was conducted outside of the project limits. Rockbags are still in place at 42nd street in the channel to prevent sedimentation downstream and a pump was used to transport excess water to a nearby manhole.

January 1, 2016: Biologist Shana Carey arrived at 2010 43rd Street, San Diego, CA at 7:00 am on Friday January 1, 2016. When City crews arrived, they finished clearing the last downstream portion of the Cottonwood channel (nearest to Osborn Street). All vegetation and large trees had been cut down the day before by Urban Corp. and the tree trimmers and were left within the project limits. City crews used a bobcat in the concrete channel to clear sediment and vegetation. All sediment and vegetation was pushed to one area where the excavator loaded it into dump trucks. The excavator did not enter the channel. After clearing this portion of the channel, City crews moved their equipment to the portion of the channel between 42nd and 40th Streets as there was material to be picked up. Once again, all sediment and vegetation was pushed to one area where the excavator was used load it into trucks. The excavator did not enter the channel. The City completed clearing out all of the sediment and vegetation in the Cottonwood channel between 43rd and Osborn Streets by the afternoon. No work was conducted outside of the project limits. Rockbags were removed from the channel after work was completed to allow water to flow freely.

Channel Status

The concrete channel did not have any standing water, however water that was backed up above one channel inlet in the western end was released when the vegetation that was blocking this water was removed. Sand bags were temporarily installed to protect downstream locations.

Biological Resources:

Stream Type: Perennial ☐ Intermittent ☒ Ephemeral ☐

The channel is likely to have intermittent flows during normal climactic conditions. Collected sediments and areas with unmanaged vegetation and large exotic plant growth occurring in some portions of the channel have impeded normal surface flow through obstruction/retention/impoundment of storm water during storm related events.

Vegetation

For purposes of this IBA, only vegetation or land covers within the emergency maintenance area are described below. A total of three vegetation communities and one land cover type were identified during this assessment: riparian scrub (disturbed southern willow scrub; concrete-lined), disturbed freshwater marsh (concrete-lined), disturbed wetland (palm dominated; concrete-lined), and developed concrete-lined channel .

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

Table 1. Existing Waters of the U.S./State in the Emergency Maintenance Area

Vegetation Community or Land Cover Type	City MSCP Habitat Tier	Acreage
Riparian Scrub (disturbed southern willow scrub; concrete-lined)	Wetland	0.06
Disturbed Freshwater Marsh (concrete-lined)	Wetland	0.06
Disturbed Wetland (palm dominated; concrete-lined)	Wetland	0.03
Developed Concrete-lined Channel	IV*	1.08
Total		1.23
*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:

Riparian Scrub (disturbed southern willow scrub; concrete-lined)

Where habitat is mapped as riparian scrub (disturbed southern willow scrub; concrete-lined), the channel contained accumulated cobble and sediment and the canopy cover was approximately 40% black willow (*Salix gooddingii*) and the other 60% cover consisted of exotics such as Mexican fan palm (*Washingtonia robusta*) and African fountain grass (*Pennisetum setaceum*). This vegetation community was located at the upstream end of the emergency maintenance near the culvert outlet (Attachment 2 - MMP Map 120; Figure 3a).

Disturbed Freshwater Marsh (concrete-lined)

Where habitat is mapped as disturbed freshwater marsh (concrete-lined), the channel had areas of accumulated sediment with less than 50% cover of Cattails (*Typha latifolia*) and a higher percentage of exotic species such as African umbrella plant (*Cyperus involucratus*) and Mexican fan palm (*Washingtonia robusta*).

Disturbed Wetland (palm-dominated; concrete-lined)

Where habitat is mapped as disturbed wetland (palm dominated; concrete-lined), the channel had areas of little to no accumulated sediment that were dominated by Mexican fan palms that were at least 4 feet in height. These trees were often loosely anchored to the concrete bottom of the channel through small roots passing in between cracks in the lining.

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 is outside of the concrete-lined channel and was not removed as part of the maintenance.

Developed Concrete-Lined Channel

Where the study area is mapped as disturbed concrete-lined channel, the channel is almost completely clear of any vegetation except for scattered individuals of African fountain grass (*Pennisetum setaceum*).

Wildlife Value

Freshwater marsh and riparian scrub (southern willow scrub) communities can provide small patches of habitat for waterfowl and shorebirds. However, due to the limited size and isolated nature of these habitats within the emergency channel maintenance area, its value to wildlife is low.

Wildlife Observed

American Crow
Black Phoebe
Mourning Dove
House sparrow

House finch

No nests were found and the work was conducted outside the breeding season of any sensitive or avian species.

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

If yes, describe the influence:

Anthropogenic disturbances include small trash items within the channel as well as large patches of invasive weed species brought into the concrete-lined channel, which have spread through landscaping, highway projects, and etc., have led to an abundance of exotics including, but not limited to, Mexican fan palms and sea fig (hanging into the concrete channel). This habitat on site is not suitable for rare wildlife and rare plant species.

Crews removed trash from the sides of the channel and within the channel.

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/City

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 two main segments of the channel (Attachment 2 - MMP Maps 120 & 121; Figures 3a & 3b). State, Federal, and City jurisdictional areas within the study area consisted of disturbed wetland (palm dominated; concrete-lined), disturbed freshwater marsh (concrete-lined), and riparian scrub (disturbed southern willow scrub; concrete-lined).

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, CDFW, and City jurisdictions are the same. The 0.02 acres of disturbed wetland (arundo-dominated) is located outside the defined limits of the concrete-lined facility and is considered under the jurisdiction of CDFW only and not Waters of the U.S.

The emergency maintenance 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 Waters of the U.S./City

Vegetation Community or Land Cover Type	Jurisdictional Acreage (ACOE, RWQCB, CDFW, and City)		Total Impact Acreage
	Wetland Waters of the U.S.	Non-Wetland Waters of the U.S.	
Riparian Scrub (disturbed southern willow scrub; concrete-lined)	0.06	0	0.06
Disturbed Freshwater Marsh (concrete-lined)	0.06	0	0.06
Disturbed Wetland (palm dominated; concrete-lined)	0.03	0	0.03
Developed Concrete-lined Channel	0	1.08	1.08
Total	0.15	1.08	1.23
*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.

* 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 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 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 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).

No potential for Least bell's vireo –willow habitat within the channel is very limited–The concrete-lined channel consisted mostly of non-native vegetation.

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.

No potential for Light footed clapper rail–more likely to be found in bays with cordgrass. No habitat exists within the channel. Non-native vegetation in the channel is extremely dense.

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).

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

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

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

If yes, provide justification:

A wildlife survey was performed before each day of work commenced and all wildlife are listed above. No roosting/nesting opportunities occur within and immediately surrounding the project boundary. The maintenance was conducted outside the avian breeding season.

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?

The maintenance was conducted outside the avian breeding season.

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

Within the channel, the only native vegetation communities are disturbed freshwater marsh (concrete-lined) and riparian scrub (disturbed southern willow scrub; concrete-lined). These habitats are small and isolated within the channel with little to no connectivity to nearby native habitats. The surrounding upland vegetation and land cover includes disturbed habitat dominated by sea fig (*Carpobrotus chilensis*) and urban/developed land cover, which consists of paved City streets and residential development.

MAINTENANCE IMPACTS

**Emergency Maintenance Methodology
Methods:**

The goal of this emergency maintenance was to remove all sediment and vegetation that has accumulated within the Cottonwood Channel from where the sediment began just west of 2010 43rd Street, San Diego, CA along the length of the channel west to the inlet that runs under Osborn Street. (Attachment 2 - MMP Maps 120 & 121; Figure 3a & 3b).

In the first emergency maintenance section located west of 43rd Street/N. Highland Avenue (Attachment 2 - MMP Map 120; Figure 3a), all sediment, vegetation, and debris were excavated from the channel using manual labor, a Bobcat, and a Gradall (i.e., excavating-type equipment with an extended arm). Initially, the Bobcat was lowered into the channel to begin maintenance. Shortly after, City crews conducted manual labor, and used chainsaws and other tools to remove vegetation from the channel by hand in places that the Bobcat could not reach, then placed it in the bottom of the channel for the Bobcat to transport to a location that the Gradall could easily access. Tree trimmers removed low hanging branches and trimmed back trees that obstructed channel flow. The Gradall was located outside and above the channel within the disturbed access/staging area parallel to Nordica Avenue (Attachment 2 - MMP Map 120; Figure 3a). The Gradall scooped out the collected material and loaded it into dump trucks, which disposed of it at a legal disposal site (Miramar Landfill).

In the second maintenance section located east of Osborn Street (Attachment 2 - MMP Map 121; Figure 3b), all sediment, vegetation, and debris were excavated from the channel by manual labor, a Bobcat, and a Gradall. The Gradall was staged outside and above the channel, so City crews and tree trimmers used power tools to remove vegetation and place it into the channel so the Bobcat would be able to transport it to an area that the Gradall could reach. All material removed from the channel was loaded into dump trucks and disposed of at a legal disposal site (Miramar Landfill).

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

Vegetation Impacts:

Table 3. Vegetation Impacts

Vegetation Community or Land Cover Type	City MSCP Habitat Tier	Acreage
Riparian Scrub (disturbed southern willow scrub; concrete-lined)	Wetland	0.06

Disturbed Freshwater Marsh (concrete-lined)	Wetland	0.06
Disturbed Wetland (palm dominated; concrete-lined)	Wetland	0.03
Total		0.15

Jurisdictional Impacts:
(See Table 2 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.

The site is not 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 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 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 type="checkbox"/> Other: _____

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 A.

*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):

All work was limited to sediment and vegetation within the concrete-lined channel. Vegetation communities that were removed as part of this maintenance included 0.06 acres of riparian scrub (disturbed southern willow scrub; concrete-lined), 0.06 acres of disturbed freshwater marsh (concrete-lined), and 0.03 acres of disturbed wetland (palm dominated; concrete-lined). There is also an additional 1.08 acres of concrete-lined channel within the maintenance area that is not vegetated (i.e. developed concrete-lined channel) and did not require maintenance.

USACE/RWQCB/CDFW Jurisdictional Wetlands:

The USACE authorized the proposed maintenance on December 8, 2015 through issuance of a Regional General Permit 63 Authorization (SPL-2015-00900-WSZ). The removal of sediment and vegetation from concrete-lined channels is not regulated, but the USACE specifically authorized the placement of "fill, consisting of a sand bag berm approximately 2.5 feet wide, 3 feet high and 6 feet long into the concrete-lined Cottonwood channel during maintenance activities. The total amount of fill results in approximately 45 square feet (0.001 acre) of temporary impacts." Given the very limited nature of the USACE regulated activity, no loss of aquatic resource functions, services, or area is expected and no compensatory mitigation is proposed. This report will be provided to the USACE as a post-maintenance report, pursuant to RGP 63. The USACE will ultimately determine if compensatory mitigation is required.

The San Diego RWQCB acknowledged the Army Corps of Engineer's RGP 63 authorization for the project in an email from Lisa Honma dated December 21, 2015. The email states: "Consistent with the San Diego Water Board's approach in certifying routine channel maintenance projects and in accordance with section VI of Clean Water Act Section 401 Water Quality Certification for U.S. Army Corps of Engineers Reauthorization of Regional General Permit 63 for Repair and Protection Activities in Emergency Situations, SB13006IN (RGP-63 Certification), the City of San Diego will be required to provide compensatory mitigation for permanent impacts that result in a loss of functions in the amount of 2:1 (area mitigated:area impacted) in wetland enhancement for the removal of disturbed wetland, disturbed freshwater marsh, and disturbed southern willow scrub." As such, a subsequent mitigation plan or purchase of approved mitigation credits totaling 0.24 ac is required to be submitted to the San Diego RWQCB for impacts 0.06 acres of disturbed freshwater marsh (concrete-lined) and 0.06 acres of riparian scrub (disturbed southern willow scrub; concrete-lined). Contact information and details regarding the mitigation site/credits will be provided to the San Diego RWQCB. It should be noted that since the San Diego RWQCB has required mitigation for "permanent impacts" of the project, the City requests that the San Diego RWQCB provide written acknowledgment that the required mitigation is adequate to mitigate any future maintenance of this channel that results in similar loss of functions (i.e., vegetation and sediment removal within the same maintenance footprint).

While CDFW requires notification of activities within concrete-lined channels, it typically does not require compensatory mitigation for these activities. This report will be provided to the CDFW as a post-maintenance report, pursuant to emergency Streambed Alteration Agreement requirements. The CDFW will ultimately determine if compensatory mitigation is required.

City Wetlands:

Mitigation is required for impacts to 0.06 acres of disturbed freshwater marsh (concrete-lined) and 0.06 acres of riparian scrub (disturbed southern willow scrub; concrete-lined). The City regulates wetlands on concrete-lined channels and requires compensatory mitigation for wetland impacts pursuant to the mitigation ratios specified in Site Development Permit (SDP) 1134892 for the MMP. The SDP incorporates mitigation language from the Coastal Development Permit (CDP) 714392. Special Condition 9 of the CDP states that wetlands mitigation shall "result in a no-net-loss of function and values and be in-kind habitat to the fullest extent possible...All wetland mitigation shall occur within nine months of impact and either be located on-site or within the same watershed... 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 (removal of giant reed (arundo) and other exotic, invasive and nonnative vegetation is not considered an impact to wetlands requiring mitigation)."

Given that the emergency maintenance conducted is a one-time authorization, impacts are considered temporary and mitigation is required at a 1:1 ratio for the loss of 0.06 acres of disturbed freshwater marsh (concrete-lined) and 0.06 acres of riparian scrub (disturbed southern willow scrub; concrete-lined). Alternately, the City may choose to mitigate for the permanent loss of disturbed freshwater marsh-concrete-lined at a 4:1 ratio and disturbed southern willow scrub-concrete-lined at a 3:1 ratio (i.e., a total mitigation requirement of 0.42 ac), such that when routine, ongoing maintenance is authorized, one-time mitigation will have been provided.

Mitigation Description/Location

The mitigation site/bank location is yet to be determined. At a minimum, in accordance with the SDP, 0.12 acre of mitigation will be implemented or secured within nine months of the impact (i.e., by August 25, 2016). The San Diego RWQCB has not indicated a timing requirement associated with the 2:1 mitigation required under their authorization of RGP 63.

ADDITIONAL COMMENTS OR RECOMMENDATIONS**Attachments**

Attachment 1: Applicable PEIR Mitigation Measures

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

Photograph 1: Looking downstream (west) from 43rd Street/Nordica Avenue toward 42nd Street. (Photo shows the east end of MMP Map 120; Figure 3a).



(December 27, 2015; 7:42am)

Photograph 2: Looking upstream (east) towards 43rd Street from 42nd Street at the proposed access/staging area. Sandbags are in place to prevent sedimentation downstream.



(December 29, 2015; 8:15am)

Photograph 3: Looking downstream (west) from inside the channel towards 42nd Street. Urban Corp. are seen here removing stands of Arundo growing in the east end of MMP Map 120; Figure 3a.



(December 29, 2015; 11:20am)

Photograph 4: Looking upstream (east) while standing at the staging area on 42nd Street following completion of maintenance activities for the portion of channel east of 42nd Street.



(December 29, 2015; 12:24pm)

Photograph 5: Looking upstream (east) towards 41st Street from the south side of channel at the bobcat transporting sediment and vegetation for the excavator to pick up. This portion of the channel is running parallel to Cottonwood Street.



(December 30, 2015; 10:09am)

Photograph 6: Looking downstream (west) at small portion of channel immediately west of 40th Street and parallel to Cottonwood Street. Urban Corp. are removing sediment and vegetation in preparation for excavation.



(December 30, 2015; 1:45pm)

Photograph 7: Looking upstream (east) while standing at the access/staging Area on Osborn Street at crews removing sediment and vegetation (Photo shows west end of MMP Map 121; Fig 3b).



(December 31, 2015; 11:03am)

Photograph 8: Looking upstream (east) at the portion of channel needing maintenance that is closest to Osborn Street (MMP Map 121; Fig 3b). Urban Corp. are removing sediment and vegetation for bobcat to transport to excavator.



(December 31, 2015; 11:12am)

Photograph 9: Looking downstream (west) at the portion of channel between closest to Osborn Street following completion of maintenance activities.

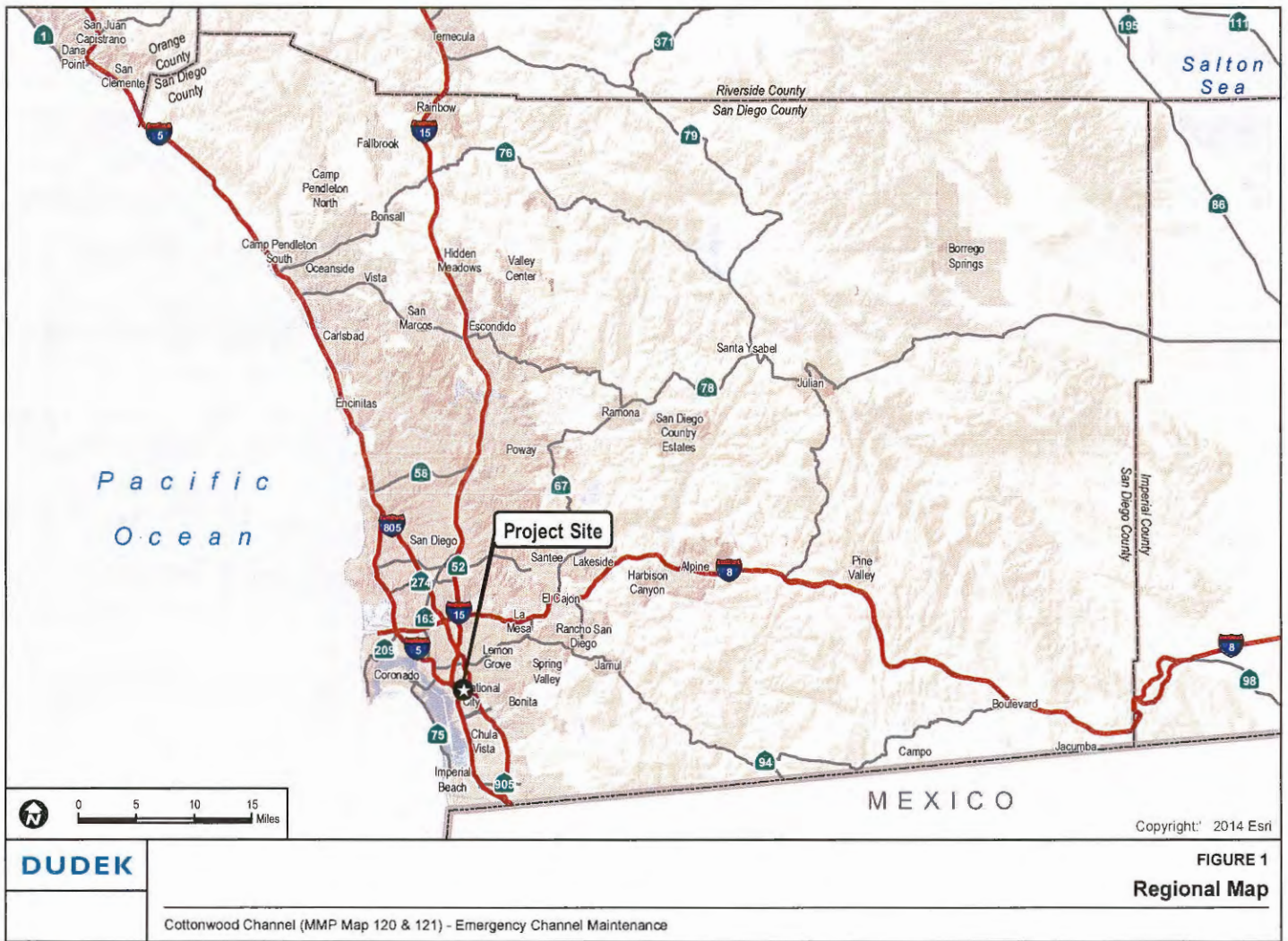


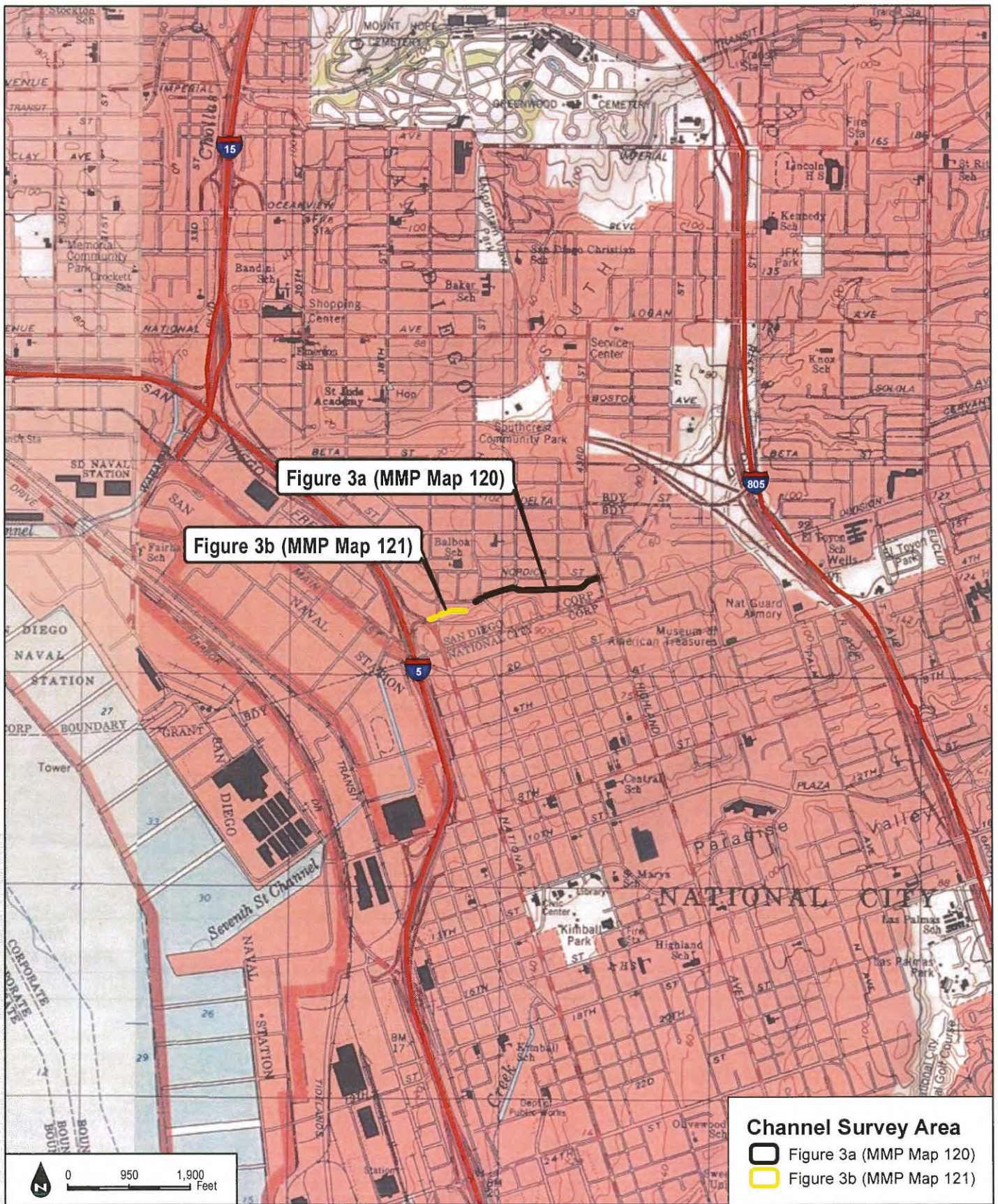
(January 1, 2016; 9:50am)

Photograph 10: Looking upstream (east) at the portion of channel parallel to Cottonwood Street between 40th and 41st Streets following completion of maintenance activities.



(January 1, 2016; 1:47pm)





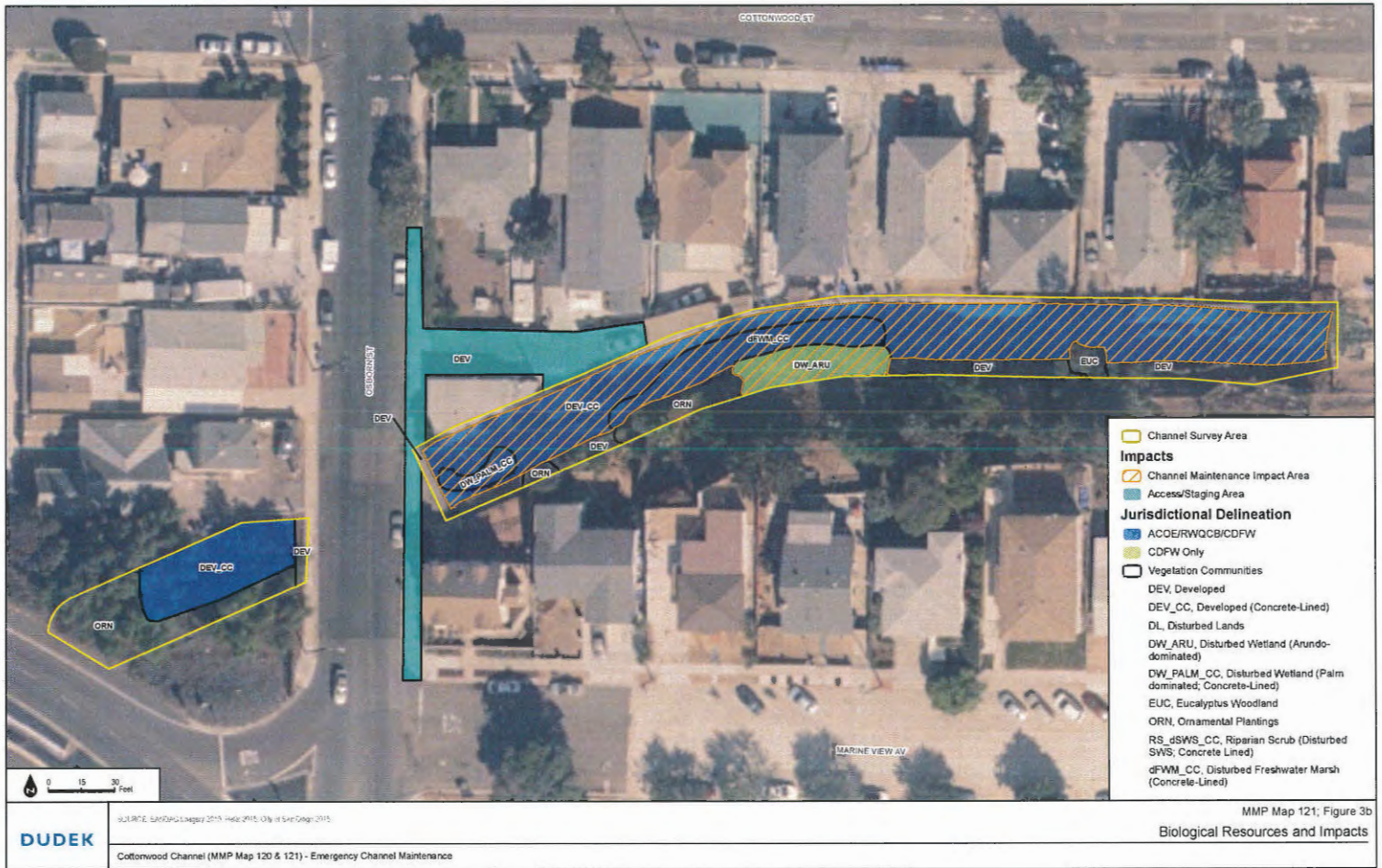
SOURCE: USGS 7.5-Minute Series - National City Quadrangle.

FIGURE 2
Vicinity Map

Cottonwood Channel (MMP Map 120 & 121) - Emergency Channel Maintenance

DUDEK





Attachment 1
Applicable PEIR Mitigation Measures

GENERAL

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

General Mitigation 2: Prior to the commencement of work, a Pre-maintenance Meeting shall be conducted and include, as appropriate, the 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: 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.

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;

Attachment 4, Page 4 of 10

- 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 project's 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.