DUDEK

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May 8, 2017 8685

Stephanie Bracci
Senior Planner
City of San Diego
Transportation and Storm Water Department, Operations and Maintenance
2781 Caminito Chollas, MS 44
San Diego, CA 92105

***Subject: Master Storm Water System Maintenance Program – Tijuana River Valley Channel Maintenance Project Individual Maintenance Plan***

Dear Ms. Bracci:

In conformance with the City of San Diego (City) modified Master Storm Water System Maintenance Program's (Master Maintenance Program or MMP) amended Site Development Permit (SDP) No. 1134892 and Program Environmental Impact Report (PEIR) Project No. 42891/SCH No. 2004101032, the attached *Individual Maintenance Plan (IMP)*(2017 IMP) (Attachment A) document is submitted as part of the Substantial Conformance Review (SCR) package for maintenance activities associated with the Tijuana River Valley Channel Maintenance Project.

Maintenance activities associated with the Tijuana River Valley Channel Maintenance Project have occurred periodically since 2013. Maintenance activities have generally been conducted between September 15 and March 15 to avoid potential impacts to nesting birds. Formal regulatory approval and implementation of detailed protocol survey mitigation measures have allowed the City to conduct maintenance activities as-needed and weather permitting throughout the calendar year for the Tijuana River Valley Channel Maintenance Project. Accordingly, this 2017 SCR submittal package (2017 SCR) is intended to address maintenance activities conducted in the 2017-2018 maintenance period, which begins September 15, 2017 and ends September 14, 2018 (2017-2018 maintenance period).

Maintenance activities conducted under the MMP as part of the Tijuana River Valley Channel Maintenance Project were first conducted in 2013. An SCR package containing an Individual Maintenance Plan (IMP) and other associated Individual Assessments (IAs) was approved in January 2013 (2013 SCR) for maintenance in the 2013-2014 maintenance period. A second SCR package, for maintenance in the 2015-2016 maintenance period (2015 SCR), that included an updated IMP (2015 IMP), was approved in July 2015. A third SCR package, for maintenance in the 2016-2017 maintenance period (2016 SCR), that included an updated IMP, was approved in August 2016.

Existing conditions and mitigation impacts were re-evaluated in spring 2017 in order to assess conditions related to the IMP in advance of the 2017-2018 maintenance period. Conditions

remain substantially similar to those described in the 2016 SCR. Note that the 2016 IMP included a new Water Pollution Control Plan (WPCP) and specific updates to the Construction Plans, Master List of BMPs, and the Maintenance Methodology. An updated WPCP and Maintenance Methodology have been prepared for the 2017-2018 maintenance period. The Construction Plans and Master List of BMPs from the previous SCR have been determined to be applicable for the 2017-2018 maintenance period. This letter and attachments serve as the basis for SCR determination for maintenance work in the 2017-2018 monitoring period as part of the Tijuana River Valley Channel Maintenance Project.

## Project History and Background

The Tijuana River Valley Channel Maintenance Project includes maintenance of the Pilot Channel and Smuggler's Gulch Channel as part of the MMP. The Pilot Channel is included on MMP Maps 138a through 138c and the Smuggler's Gulch Channel is included on MMP Maps 138 and 139 (City of San Diego 2011). Environmental permits were issued by the California Department of Fish and Wildlife (CDFW), Regional Water Quality Control Board (RWQCB), United States Fish and Wildlife Service (USFWS), Army Corps of Engineers (ACOE), and the California Coastal Commission (CCC) in 2012 and 2013 based on the project scope, impacts, and mitigation. The RWQCB 401 Certification (No. 09C-077) issued for this maintenance expired on April 17, 2017. In December 2016, an extension of this permit was requested and the RWQCB issued an amendment to the existing Certification, making it valid through October 30, 2017 (which coincides with the existing project ACOE 404 Permit term). In addition, the project's CDFW Streambed Alteration Agreement (1600-2011-0271-R5) expired on November 30, 2016. An extension of this permit was also requested and was granted, extending the permit term through November 30, 2021. Maintenance activities in the Pilot Channel and Smuggler's Gulch Channel have been conducted during the 2013-2014, 2015-2016, and 2016-2017 maintenance periods. Appropriate construction-related Best Management Practices and concurrent wetland compensatory mitigation have been implemented as part of the comprehensive channel maintenance project. The City is also working with federal, state and local agencies to address bi-national sources of sediment and trash that regularly discharge to the Pilot Channel and Smuggler's Gulch Channel.

## Project Description

Maintenance of the Pilot Channel and the Smuggler's Gulch Channel includes the mechanized removal of sediment, vegetation and trash and debris from the channels. Proposed maintenance procedures for Tijuana River Valley Channel Maintenance Project channel clearing activities in the 2017-2018 maintenance period remain substantially similar to procedures included as part of the IMP included in the 2013, 2015, and 2016 SCR packages.

The periodic maintenance of both channels is needed to restore the channels' flood conveyance capacity to original design condition and reduce flood risk. The maintenance activities also reduce impacts to the Tijuana River National Estuarine Research Reserve from transport of sediment and trash and debris derived from upstream sources to the project area. The project

incorporates removal of approximately 10,000–30,000 cubic yards of material per maintenance period, occupying a total of 4.31 acres.

## Current Conditions

Since the most recent maintenance activities, natural and anthropogenic processes in the upstream watershed have resulted in additional sediment, trash and debris accumulation in the channel maintenance areas. Field survey observations indicate that site conditions are substantially similar to conditions evaluated as part of the 2013, 2015, and 2016 IMPs. Accordingly, the 2016 IMP findings have been determined to be applicable to the maintenance activities for the 2017-2018 maintenance period. Specific to the Tijuana River Channel Maintenance Project, the following conditions should be noted:

- Based on historical sediment accumulation rates within the Tijuana River Valley maintenance channels, it is expected that maintenance activities and SCR submittals will be necessary for the future of this maintenance program.
- The 2013, 2015, and 2016 IMPs and corresponding Construction Plans, Master List of BMPs, WPCP, and Maintenance Methodology were reviewed in the spring of 2017 by Dudek engineering staff.
- A 2016 WPCP was prepared for the 2016 IMP using a WPCP guide provided by the City of San Diego. A 2017 WPCP has been prepared for the 2017 IMP using an updated guide provided by the City of San Diego.
- As described in the 2016 IMP, pre-maintenance pumping may be necessary to dry ponded water in the channel areas to allow mechanized equipment use. As necessary for the 2017-2018 maintenance period, protocol surveys to identify nearby critical occupied nests will be utilized to guide noise-related and other mitigation measures to comply with regulatory requirements. These measures were documented in the 2016 SCR, and are documented in the 2017 SCR.
- Due to potential for Polyphagous Shot Hole Borer (PSHB) infestation onsite, the 2017 Maintenance Methodology has been updated to include measures that protect against the spread of PSHB.

In summary, evaluation of current conditions and review of the 2013, 2015, and 2016 SCR packages did not identify any new significant environmental impacts to water quality resources that have not already been identified, addressed and/or mitigated by the required conditions set forth in the associated SDP and PEIR. Therefore the proposed maintenance would substantially conform to the existing permit and environmental document.

Please contact me by phone (760.479.4119) or by e-mail (egeisler@dudek.com) with questions or requests for clarification.

Respectfully,

Elizabeth Geisler, MS
Project Scientist
Dudek

**Tijuana River Pilot Channel & Smuggler's Gulch Channel**

**Attachment 1 - Individual Maintenance Plan (2017 SCR)**

## *Introduction*

The City of San Diego (City) Master Storm Water System Maintenance Program (Master Maintenance Program or MMP) is currently planning for implementation of channel maintenance activities in the Smuggler's Gulch (SG) and the Tijuana River Pilot (Pilot) Channels. This Individual Maintenance Plan (IMP) identifies the scope of work, maintenance methodology and procedures, equipment, and duration for maintenance activities planned in the two channels. The IMP also includes a list of Best Management Practices (BMPs), maintenance protocols and mitigation measures derived from applicable permits and regulations that will be implemented with the intent to avoid, minimize, and/or mitigate potential environmental effects to sensitive resources, such as water quality, biological and historical resources.

## *Scope of Work*

The proposed maintenance of the SG and Pilot Channels includes the mechanized removal of sediment, vegetation and trash and debris from the channels using heavy equipment. In addition, pre-maintenance work in the Pilot Channel may be required for the 2017-2018 maintenance period. Pumping may be required to remove accumulated stagnant ponded water from winter and spring rains downstream in order to sufficiently dry out the channel and allow for mechanized excavation. The pumping of ponded water may be continued during the maintenance activities, if required during the maintenance period to transport ponded water to the western end of the Pilot Channel and sufficiently dry the work area.

The periodic maintenance of both channels is needed to restore the channels' flood conveyance capacity to their original design condition and to protect the Tijuana River National Estuarine Research Reserve from impacts due to downstream transport of accumulated sediment and trash and debris from the project area. The project incorporates removal of approximately 10,000–30,000 cubic yards of material, occupying a total of 4.31 acres. The SG Channel and Pilot Channel are depicted in the MMP Maps 138 and 139, and Maps 138a and 138c, respectively, and are shown on Sheet 1 of the Construction Plans.

## *Impact Area*

The SG Channel and Pilot Channel are located in the Tijuana River Valley (Valley), within the jurisdiction of the City of San Diego (City). The Tijuana River watershed covers an area of approximately 1,725 square miles, of which 73 percent is located in Mexico and 27 percent in the United States. The main Tijuana River flows in a northwesterly direction from the international border into the Valley and City jurisdiction. Approximately 21.9 square miles of the watershed (~1% of the total watershed area) is within City jurisdiction.

The Tijuana River National Estuarine Research Reserve (TRNERR) and a portion of the City of Imperial Beach are generally west of the project area located adjacent to the Tijuana River's discharge to the Pacific Ocean. The Otay-Nestor community and the United States Naval Outlying

Landing Field Imperial Beach are located north of the project area; and the community of San Ysidro is located to the east.

The Pilot Channel is included on MMP Maps 138a through 138c and the SG Channel is included on MMP Maps 138 and 139 (City of San Diego 2011a). The Pilot and SG Channels are generally located in the Valley roughly bordered by Hollister Street to the east and Monument Road to the south. The Tijuana River low flow channel splits into what are commonly referred to as the Tijuana River's Northern and Southern Channels approximately 800 feet east of Hollister Street. The Pilot Channel follows the Southern Channel.

The Valley, including the project area, is within the Federal Emergency Management Agency's (FEMA) Special Flood Hazard Areas Subject to Inundation by the 1-percent Annual Chance Flood (100-year floodplain). The project areas are zoned OF-1-1 (Open Space-Floodplain) and AR-1-1 (Agricultural/Residential); and are designated for Open Space and Agricultural land uses in the Tijuana River Valley Land Use Plan. In addition, the project area is within the boundaries of the County of San Diego's 2.7 square mile Tijuana River Valley Regional Park (Regional Park). The project area is also within the City's Multiple Species Conservation Program's Multi-Habitat Planning Area (MHPA).

The project consists of maintenance and dredging of the Pilot and SG channels to remove anthropogenic-derived sediment and trash that accumulates as a result of development and other practices in the upstream watershed. Recent maintenance efforts within the Pilot Channel and SG Channel include maintenance during the 2009-2010, 2010-2011, 2013-2014, and 2015-2016 maintenance periods. The removal of sediment and trash is conducted to maintain flow conveyance capacities and reduce the risk of flooding to public and private infrastructure in the Valley.

Pilot Channel

The Pilot Channel was originally excavated in 1993 within the Southern Channel. It is has been irregularly maintained since that time as an earthen trapezoidal channel that is approximately 5 feet deep, with a 23-foot top width, and a 15-foot streambed width. According to the MMP, the Pilot Channel was constructed to divert wet-weather flows from 2- to 5-year storm events into the Southern Channel (City of San Diego 2011b). The Pilot Channel stretches from 100 feet east to 5,300 feet west of Hollister Street for a total length of 5,400 feet and it flows roughly in an east-west direction.

At the conclusion of maintenance activities, trail access from the area north of the Pilot Channel adjacent to the confluence of the Pilot Channel and Smuggler's Gulch channel to the area south of the Pilot Channel, west of Smuggler's Gulch may be restored. Restoration would include grading of an approximate 8 foot wide section within the 23-foot top width of the Pilot Channel using native soils to re-establish the trail connection using a maximum 3:1 slope with a 4:1 slope preferred.

If necessary for the 2017-2018 maintenance period, pre-maintenance pumping may be conducted to dry the Pilot Channel. The first stage of the pumping process will begin with the placement of a suction hose within the Pilot Channel near Hollister Street Bridge, placing a pump adjacent to the channel, and the placing of temporary hoses adjacent to the channel bank to a discharge location, likely near the confluence of the Pilot Channel and SG Channel. The second stage would involve a similar set up of equipment placed further downstream to pump water from the confluence to the downstream (western) end of the Pilot Channel. Additional pumping may be required if rains occur during the project and result in ponded water pools within the work area.

SG Channel

The SG Channel is an existing historical agricultural channel with manufactured berms. The contributing sub-watershed area is approximately 6.7 square miles, primarily located south of the international border within Canon de los Mataderos. The SG Channel, as originally constructed, is an earthen channel approximately 20 feet wide and 15 feet deep. The SG Channel is tributary to the South Channel and flows in a northerly direction, from the international border past Monument Road until it confluences with the Pilot Channel. The portion of the SG Channel maintained by the City extends for a distance of approximately 3,040 feet.

Three equipment turnarounds (extending beyond the 23-foot wide Pilot Channel maintenance corridor an additional 25 feet in width for a length of approximately 30 feet along the channel) are sited immediately adjacent to the Pilot Channel, and are required for maintenance activities. Two of the turnarounds are located west of the Pilot Channel confluence with the SG Channel and were constructed and utilized during the 2009 maintenance activities. The third turnaround is located east of this confluence and has been constructed as part of a previous maintenance project. All three turnarounds are necessary for equipment movements within the confined channel work area. It is expected that the turnarounds would remain at the same locations for future maintenance needs for the project.

***Staging and Stockpiling Areas***

Maintenance operations will remove a large volume of sediment and require the use of temporary stockpile sites to store and process excavated material prior to transport. Two temporary staging areas, Staging Areas B will be used to store equipment and materials during maintenance operations, and will also be used as stockpile sites. Staging Areas D may be used to store equipment and materials during maintenance operations, and will also be used as stockpile sites.

Staging Area B is east of and adjacent to the SG Channel. There is a permanent earthen berm between this area and the SG Channel, protecting it from potential flooding. Permanent gated access to the staging area is from Monument Road. This staging area was initially used in 2001 and has been used during each maintenance event since that time, by both the City and County of San Diego. Manual and mechanical separation of excavated material to sort sediment, vegetation,

trash, and tires will occur at Staging Area B. No excavation or grading would be necessary in this area other than minor trenching and clearing to install temporary silt fencing and BMPs.

Staging Area D is located east of the immediate channel area, adjacent to the South Bay International Wastewater Treatment Plant south of Monument Road. Staging Area D may be used in conjunction with Staging Area B for staging equipment and storing excavated materials. Excavated material will initially be stockpiled at Staging Area B, and then transferred to Staging Area D or to a legal disposal site. Manual and mechanical separation of excavated material to sort sediment, vegetation, trash, and tires may occur at Staging Area D. No excavation or grading would be necessary in this area other than minor trenching and clearing to install temporary silt fencing and BMPs.

This IMP identifies a suite of BMPs, maintenance protocols and mitigation measures that will be employed at the staging/stockpiling areas to avoid, minimize and/or mitigate potential impacts from the material stockpiles, such as erosion and off-site sediment transport.

***Access Routes***

For the SG Channel and Pilot Channel maintenance project, two public roadways would be used during maintenance activities, Monument Road and Hollister Street. Monument Road is south of the site, spanning between the two staging areas, and is used for hauling excavated materials from Staging Area B to Staging Area D (if utilized). Hollister Street is located east of the site and is traveled for transit between Staging Area B to the off-road access route (described below) in the Tijuana River Valley Regional Park (TRVRP). Throughout the project, there will be no construction-related road closures and both roads will remain open during construction activities.

Three out of four access routes will be used during construction, and are shown on Sheet 1 of the construction plans. These access routes are located within existing trails and access areas that are established and identified in the Master Maintenance Program and previous permits. Route 1 and Route 2 may require some minimal maintenance (i.e., minor vegetation and/or sediment removal, as necessary) to allow access by construction vehicles and equipment.

Route 1 leads south from an unnamed road that runs in the east-west direction between Hollister Street and Saturn Boulevard. This route provides access to the channel confluence for personnel vehicles, maintenance vehicles, and equipment utilizing the existing width of the access path.

Route 2 allows access into the SG Channel via an access ramp located on the east bank, immediately downstream (i.e., north) of the Disney Crossing. The access ramp was constructed in 2009, and is a maintained feature of the project that allows construction equipment access to the channels during maintenance. Route 2 also continues north along the eastern side of the SG Channel where the maintenance vehicles mobilize to remove excavated sediment from the northern portion of the channel.

The portion of SG Channel south of the Disney Crossing will be accessed from Route 3, an existing access route that runs along the eastern berm of the channel. Portions of the access route will be flagged off, due to environmentally sensitive areas.

Route 4 is parallel with Hollister Street to the east and allows access to the portion of the Pilot Channel east of the Hollister Street Bridge. The route is approximately 15 feet wide and is an existing dirt road, except for an approximately 45-foot-long section on the south bank of the Tijuana River Pilot Channel where existing wetlands vegetation would be impacted to allow access to the area. An erodible berm located east of Hollister Street Bridge and north of the Tijuana River Pilot Channel could also be used for small equipment and foot-traffic, if necessary.

In addition, throughout implementation of the project the maintained channels (i.e., Smuggler's Gulch and Tijuana River Pilot Channel) would be used for construction access and for hauling excavated materials.

***Pre-Maintenance Pumping (Potential), Maintenance Methods and Equipment***

The maintenance methods and equipment that will be employed to perform the required maintenance at the SG Channel and the Pilot Channel are summarized below and described in detail in the attached construction plans (refer to Attachment 1a).

As stated above, pre-maintenance pumping to dry the eastern portion of the Pilot Channel may be required for the 2017-2018 maintenance period, and would likely occur in stages. If utilized, the pumping process will begin with the placement of a suction hose within the Pilot Channel near Hollister Street Bridge, placing a pump adjacent to the channel, and the placing of temporary hoses along/adjacent to the channel bank to a discharge location, likely near the confluence of the Pilot Channel and SG Channel. Critically silenced pumps will be used throughout the project. The second stage would involve a similar set up of equipment placed further downstream to pump water from the confluence to the downstream (western) end of the Pilot Channel. Additional pumping may be required if rains occur during the project and result in ponded water pools within the work area. If warranted, sound attenuation by placing the pumps within a 3-sided enclosure constructed on-site to block line of sight between the pump and any nearby critical occupied least Bell's vireo nests will be utilized. These measures are intended to comply fully with the U.S. Fish and Wildlife Service (USFWS) Biological Opinion (FWS-SDG-08B0600-10F001) required Conservation Measures (CM) related to noise generated for work to be conducted during the breeding season. USFWS CM-4 and CM-5 allow for project construction activities to occur during the breeding season, as long as noise levels at the edge of occupied least Bell's vireo nests is kept below 60 dBA Leq1-hr (A-weighted decibels over a 1-hour average). Additional necessary stages of pre-maintenance pumping work will involve a similar set up of equipment placed further downstream and shielded to reduce noise levels to any present least Bell's vireo nests to no more than 59 dBA at 100 feet.

The sequence of channel maintenance activities will depend on field conditions, equipment availability, and/or biological resource mitigation measures. Maintenance of the southern portion of the SG Channel will be performed in such a way as to avoid sensitive resources identified on the earthen berm between the channel and Staging Area B. The project would include excavation in the SG Channel within a 20-foot wide corridor, approximately 15-feet deep, for a total length of 3,040 linear feet. The Pilot Channel portion of the project would include sediment and vegetation removal within a 23-foot wide corridor centered on the channel (approximately 5-feet deep with a 15-foot wide channel bottom), for a total length of 5,300 linear feet. Equipment that will be utilized to perform maintenance activities includes bulldozers, excavators, loaders, rock trucks, bobcats, vactor, back hoe, ditch witch, and water trucks.

Equipment will enter the SG Channel via the temporary access ramp located upstream of the Disney Crossing. The general maintenance procedure consists of earth-moving equipment within the facility (bulldozer) pushing the accumulated material with a bucket to a central site within the channel. Material will then be scooped up with an excavator (operating within the channel, or on the access routes along the channels), so that the excavated material can be deposited into a waiting rock or dump truck. The loaded truck will then leave the facility and transport the material to an approved disposal site or the temporary stockpile area at Staging Area B. Excavated material stockpiled at Staging Area B will be transported to Staging Area D, as needed. Separation/sorting of excavated material will occur at Staging Area B and possibly Staging Area D. The relative locations of Staging Areas B and D are shown on Sheet 1 of the construction plans. Maintenance activities will generally be contained within smaller areas of the storm water facility itself, typically working in concert with several equipment crews operating at the same time in one location. Also incorporated within the SG Channel maintenance activities, is the cleaning of existing culverts under Monument Road (utilizing a vactor) and at the Disney Crossing (utilizing a bobcat and backhoe). In addition, the gabion rock mattress, located near the confluence of the SG and Pilot Channels, will be inspected and may require maintenance.

***Best Management Practices, Maintenance Protocols and Mitigation Measures***

A master list of the BMPs, maintenance protocols and mitigation measures (Master List) that will be implemented to avoid, minimize, and/or mitigate impacts to sensitive resources during and after maintenance is provided as Attachment 1b. Maintenance crews and technical personnel will implement the measures in the Master List as applicable to the specific maintenance activity being performed. Attachment 1b lists the source document/permit, BMP identifier, and description (i.e., specific permit or source document language) of the applicable BMP, maintenance protocol or mitigation measure. The master list is comprised of BMPs, maintenance protocols and mitigation measures derived from the following sources:

- Modified Master Maintenance Program (MMP)
- Coastal Development Permit, Special Conditions (CDP)
- Master Maintenance Program, Program Environmental Impact Report (PEIR)

- Regional Water Quality Control Board (RWQCB) 401 Water Quality Certification (401)
- Army Corps of Engineers (ACOE) 404 Permit
- California Department of Fish and Game (CDFG) 1600 Streambed Alteration Agreement (1600)
- U.S. Fish and Wildlife Service (USFWS) Tijuana River Flood Control Biological Opinion (BO)
- USFWS and CDFW Protected Species Plan

Measures called out in the construction plans are noted in the Master List. Each plan note in the construction plans may refer to, or encompass more than one related BMP, maintenance protocol or mitigation measure. In addition, the Water Pollution Control Plan (Attachment 1c) provides detailed information regarding BMP types and locations.

***Project Duration and Schedule***

Maintenance (i.e., excavation) of the SG Channel and Pilot Channel, as described in the project Scope of Work, is anticipated to require 60 -90 days for each channel to complete, resulting in total project duration of approximately 120 days. Field conditions, equipment availability and/or biological resource mitigation measures may impact the duration of maintenance activities. Pre-maintenance pumping is anticipated to require an additional approximately 30-45 days. Each channel will require a team of 15 or more workers to complete the maintenance activities within this timeframe. Maintenance excavation is anticipated to begin September 15 and is targeted for completion March 15, depending on weather conditions. Focused surveys to assess the presence of active vireo nests within a 500' buffer from where the pumps will be situated will be conducted between approximately July 15 and August 1, prior to the commencement of the pumping activity. Additional surveys will be completed weekly during the duration that project activities take place during the breeding season (estimated to be between August 1 and September 15). Pre-maintenance pumping is anticipated to begin as early as August 1. Additional bird/nesting surveys to detect potential raptor nests are required for work conducted between January 15 and March 15.

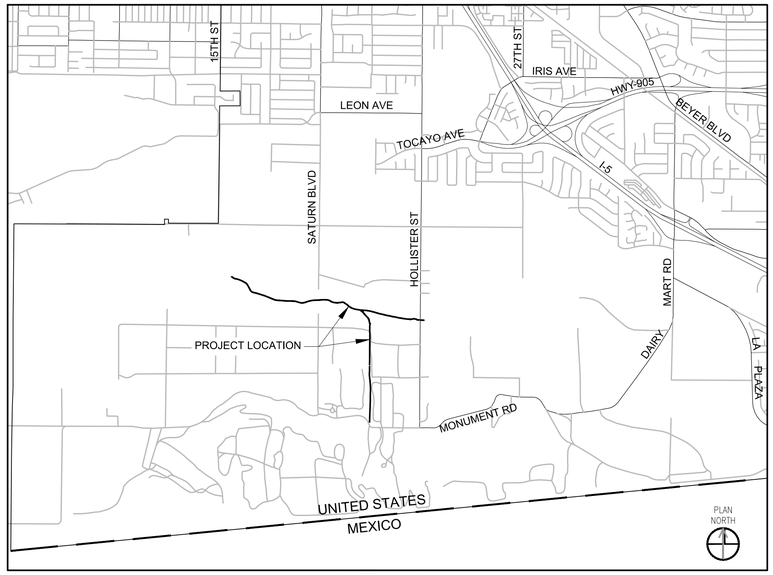
**Attachments:**

1a Construction Plans

1b Master List of BMPs

1c Water Pollution Control Plan

1d Maintenance Methodology


VICINITY MAP

NOT TO SCALE




PLAN NORTH

500' 0' 250' 500' 1000' 1500'

GRAPHIC SCALE
1 INCH = 500 FT

NOTES:
CONSTRUCTION PLANS WERE ORIGINALLY DEVELOPED FOR THE TIJUANA RIVER VALLEY CHANNEL MAINTENANCE PROJECT FOR THE 2013 INDIVIDUAL MAINTENANCE PLAN (IMP) AND SUBSTANTIAL CONFORMANCE REVIEW (SCR). CONSTRUCTION PLANS WERE REVIEWED IN 2015 AND UPDATED BASED ON 2013 AS-BUILT PLANS FOR THE 2015 SCR PACKAGE. UPDATED CONSTRUCTION PLANS WERE USED FOR THE 2015-2016 MAINTENANCE PERIOD. EVALUATION OF CURRENT CONDITIONS AND REVIEW OF THE 2016 CONSTRUCTION PLANS, AS WELL AS OTHER COMPONENTS OF THE 2016 IMP, HAS DETERMINED THE 2016 CONSTRUCTION PLANS TO BE GENERALLY APPLICABLE TO THE MAINTENANCE ACTIVITIES FOR THE 2017-2018 MAINTENANCE PERIOD. NOTE THAT THE CALIFORNIA ASSOCIATION OF STORMWATER QUALITY AGENCIES (CASQA) BEST MANAGEMENT PRACTICES FACT SHEET REFERENCE NUMBERS HAVE BEEN ADDED IN PARENTHESES TO APPLICABLE LEGEND AND NOTES.

SITE DRAINAGE NOTES:
THE DRAINAGE AREA FOR THE SMUGGLER'S GULCH CHANNEL IS PRIMARILY THE CANON DE LOS MATADEROS WATERSHED, LOCATED IN MEXICO. THE DRAINAGE AREA FOR THE PILOT CHANNEL INCLUDES THE UPSTREAM PORTION OF THE TIJUANA RIVER VALLEY AND A 462 SQUARE-MILE AREA STRADDLING THE US-MEXICO INTERNATIONAL BORDER. THE DIRECTION OF FLOW IS GENERALLY NORTH/WEST FROM THE INTERNATIONAL BORDER THROUGH THE SMUGGLER'S GULCH AND PILOT CHANNELS TO THE NEARBY TIJUANA RIVER AND TIJUANA RIVER ESTUARY WATERBODIES. 303D LISTINGS FOR THE TIJUANA RIVER INCLUDE: EUTROPHIC, INDICATOR BACTERIA, LOW DISSOLVED OXYGEN, PESTICIDES, PHOSPHORUS, SEDIMENTATION/SILTATION, SELENIUM, SOLIDS, SURFACTANTS (MBAS), SYNTHETIC ORGANICS, TOTAL NITROGEN AS N, TOXICITY, TRACE ELEMENTS, TRASH. 303D LISTINGS FOR THE FIRST DOWNSTREAM WATER BODY, THE TIJUANA RIVER ESTUARY INCLUDE: EUTROPHIC, INDICATOR BACTERIA, LEAD, LOW DISSOLVED OXYGEN, NICKEL, PESTICIDES, THALLIUM, TRASH, TURBIDITY. THERE ARE ONLY LIMITED MUNICIPAL STORM WATER SYSTEM (I.E., INLETS, CURBING, ETC.) FEATURES IN THE SITE VICINITY AND NONE WITHIN THE MAINTENANCE AREA.

LEGEND

- PERMANENT TURNAROUND AREA (30' x 25')
- EXISTING ACCESS ROAD
- ESA
- STABALIZED CONSTRUCTION ENTRANCE (TC-1)
- W — EX WATER MAIN
- SD — EX STORM DRAIN
- S — EX SEWER MAIN
- SF — SILT FENCE (SE-1)
- FR — FIBER ROLL (SE-5)
- STAGING AREA LIMITS
- MAJOR CONTOUR
- MINOR CONTOUR
- PARCEL
- HAUL ROUTE

## WORK TO BE DONE

THE IMPROVEMENTS CONSIST OF THE FOLLOWING WORK TO BE DONE ACCORDING TO THESE PLANS AND THE STANDARD SPECIFICATIONS AND STANDARD DRAWINGS OF THE CITY OF SAN DIEGO.

- MAINTENANCE OF CHANNELS TO REMOVE ACCUMULATED SEDIMENT AND OTHER DEBRIS

## STANDARD SPECIFICATIONS

STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREENBOOK), 2012 EDITION, DOCUMENT NO. PITS070112-01

CITY OF SAN DIEGO STANDARD SPECIFICATIONS FOR PUBLICWORKS CONSTRUCTION (WHITEBOOK), 2012 EDITION, DOCUMENT NO. PITS070112-02

CALIFORNIA DEPARTMENT OF TRANSPORTATION MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, 2012 EDITION, DOCUMENT NO. PITS070112-04

CALIFORNIA DEPARTMENT OF TRANSPORTATION U.S. CUSTOMARY STANDARD SPECIFICATIONS, 2010 EDITION, DOCUMENT NO. PITS070112-02

## STANDARD DRAWINGS

CITY OF SAN DIEGO STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, 2012 EDITION, DOCUMENT NO. PIT070112-03

CALIFORNIA DEPARTMENT OF TRANSPORTATION U.S. CUSTOMARY STANDARD PLANS, 2010 EDITION, DOCUMENT NO. PITS070112-05

PRIOR TO THE ISSUANCE OF ANY CONSTRUCTION PERMIT, THE OWNER/PERMITTEE SHALL INCORPORATE ANY CONSTRUCTION BEST MANAGEMENT PRACTICES NECESSARY TO COMPLY WITH CHAPTER 14, ARTICLE 2, DIVISION 1 (GRADING REGULATIONS) OF THE SAN DIEGO MUNICIPAL CODE, INTO THE CONSTRUCTION PLANS OR SPECIFICATIONS. (FROM CYCLE 4)

DATUM: NAD 1983 STATEPLANE CALIFORNIA VI FIPS 0406 FEET
TOPO ELEVATIONS FOR PICTORIAL PURPOSES ONLY
TOPOGRAPHY DATE: 1999

CONTRACTOR MUST NOTIFY THE BELOW LISTED AGENCY AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION :

UNDERGROUND SERVICE ALERT (USA) 1-800-422-4133

# MAINTENANCE PLANS FOR
# TIJUANA RIVER VALLEY
# OVERALL PLAN

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING DEPARTMENT
SHEET 1 OF 15 SHEETS

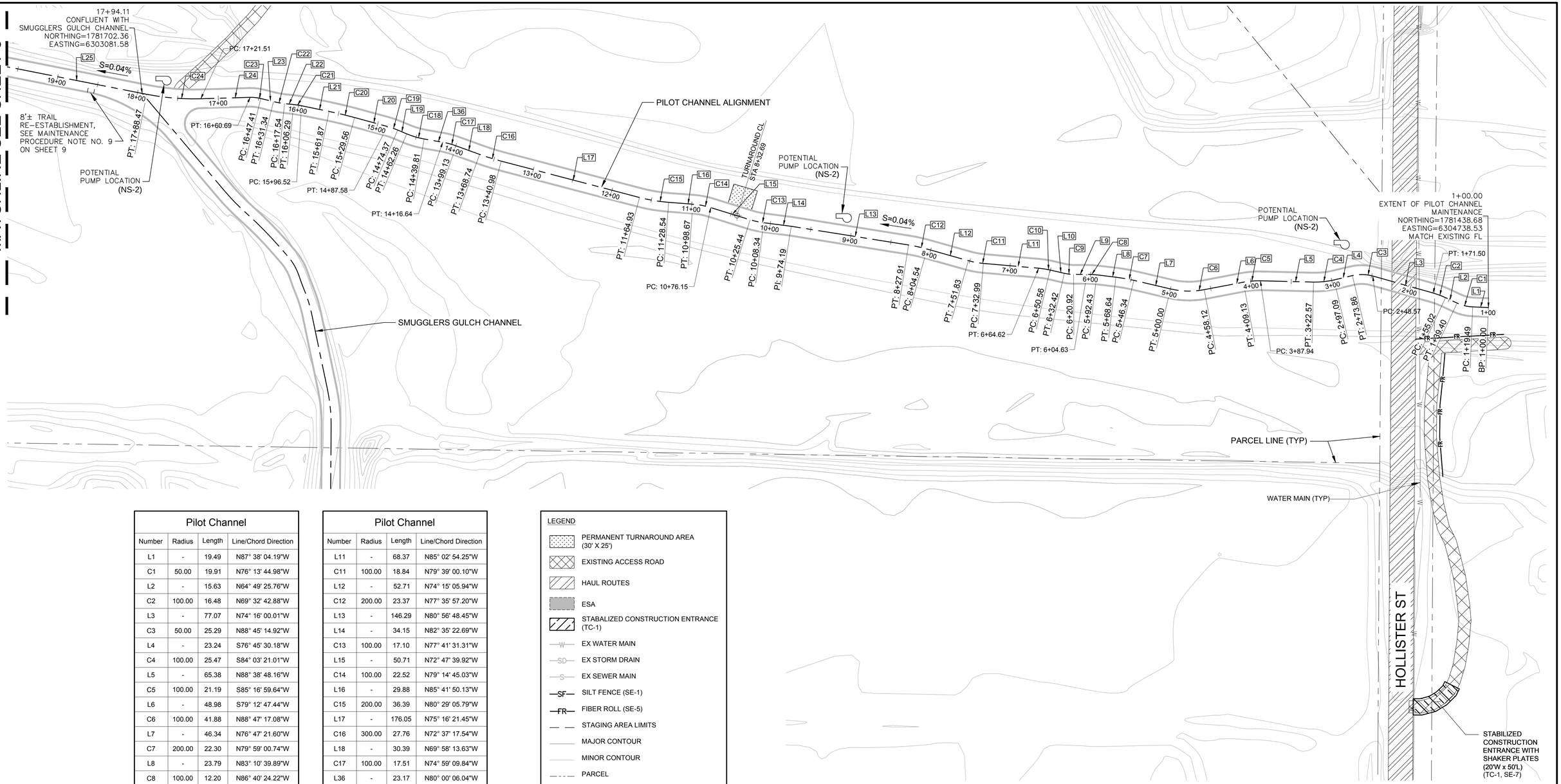
W.O. NO.

| FOR CITY ENGINEER | | DATE | | | SECTION HEAD |
|---|---|---|---|---|---|
| DESCRIPTION | BY | APPROVED | DATE | FILMED | |
| FILE NAME: DATE: | | | | | PROJECT MANAGER |
| | | | | | DESIGN ENGINEER |
| AS-BUILT | | | | | 140-1731 LAMBERT COORDINATES |

CONTRACTOR _____ DATE STARTED _____
INSPECTOR _____ DATE COMPLETED _____

P:\101.Engineering\San Diego\Storm Water Division\8685 TO 20 TJ Biomonitoring\DUDEK WORK PRODUCTS\DOCUMENTS\TJ SCR\Construction Plans\CAD\1-OVERALL 7/14/2015 8:22 AM

MATCHLINE SEE SHEET 3




| Pilot Channel | | | |
|---|---|---|---|
| Number | Radius | Length | Line/Chord Direction |
| L1 | - | 19.49 | N87° 38' 04.19"W |
| C1 | 50.00 | 19.91 | N76° 13' 44.98"W |
| L2 | - | 15.63 | N64° 49' 25.76"W |
| C2 | 100.00 | 16.48 | N69° 32' 42.88"W |
| L3 | - | 77.07 | N74° 16' 00.01"W |
| C3 | 50.00 | 25.29 | N88° 45' 14.92"W |
| L4 | - | 23.24 | S76° 45' 30.18"W |
| C4 | 100.00 | 25.47 | S84° 03' 21.01"W |
| L5 | - | 65.38 | N88° 38' 48.16"W |
| C5 | 100.00 | 21.19 | S85° 16' 59.64"W |
| L6 | - | 48.98 | S79° 12' 47.44"W |
| C6 | 100.00 | 41.88 | N88° 47' 17.08"W |
| L7 | - | 46.34 | N76° 47' 21.60"W |
| C7 | 200.00 | 22.30 | N79° 59' 00.74"W |
| L8 | - | 23.79 | N83° 10' 39.89"W |
| C8 | 100.00 | 12.20 | N86° 40' 24.22"W |
| L9 | - | 16.29 | S89° 49' 51.44"W |
| C9 | 50.00 | 11.50 | N83° 34' 57.05"W |
| L10 | - | 18.15 | N76° 59' 45.54"W |
| C10 | 100.00 | 14.05 | N81° 01' 19.89"W |

| Pilot Channel | | | |
|---|---|---|---|
| Number | Radius | Length | Line/Chord Direction |
| L11 | - | 68.37 | N85° 02' 54.25"W |
| C11 | 100.00 | 18.84 | N79° 39' 00.10"W |
| L12 | - | 52.71 | N74° 15' 05.94"W |
| C12 | 200.00 | 23.37 | N77° 35' 57.20"W |
| L13 | - | 146.29 | N80° 56' 48.45"W |
| L14 | - | 34.15 | N82° 35' 22.69"W |
| C13 | 100.00 | 17.10 | N77° 41' 31.31"W |
| L15 | - | 50.71 | N72° 47' 39.92"W |
| C14 | 100.00 | 22.52 | N79° 14' 45.03"W |
| L16 | - | 29.88 | N85° 41' 50.13"W |
| C15 | 200.00 | 36.39 | N80° 29' 05.79"W |
| L17 | - | 176.05 | N75° 16' 21.45"W |
| C16 | 300.00 | 27.76 | N72° 37' 17.54"W |
| L18 | - | 30.39 | N69° 58' 13.63"W |
| C17 | 100.00 | 17.51 | N74° 59' 09.84"W |
| L36 | - | 23.17 | N80° 00' 06.04"W |
| C18 | 100.00 | 22.45 | N73° 34' 14.17"W |
| L19 | - | 12.11 | N67° 08' 22.31"W |
| C19 | 100.00 | 13.21 | N70° 55' 21.63"W |
| L20 | - | 41.99 | N74° 42' 20.96"W |

LEGEND

- PERMANENT TURNAROUND AREA (30' X 25')
- EXISTING ACCESS ROAD
- HAUL ROUTES
- ESA
- STABALIZED CONSTRUCTION ENTRANCE (TC-1)
- EX WATER MAIN
- EX STORM DRAIN
- EX SEWER MAIN
- SILT FENCE (SE-1)
- FIBER ROLL (SE-5)
- STAGING AREA LIMITS
- MAJOR CONTOUR
- MINOR CONTOUR
- PARCEL
- MHPA
- CHANNEL MAINTENANCE CENTERLINE
- LIMITS OF CHANNEL MAINTENANCE

PLAN NORTH

60' 0' 30' 60' 120' 180'

GRAPHIC SCALE
1 INCH = 60 FT

NOTES:

1. ENTIRE CHANNEL MAINTENANCE AREA SUBJECT TO IN-CHANNEL ENHANCEMENT MITIGATION REQUIREMENTS.
2. SEE SHEET 8 FOR CHANNEL SECTION.

# MAINTENANCE PLANS FOR

# TIJUANA RIVER VALLEY

# PILOT CHANNEL MAINTENANCE

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING DEPARTMENT
SHEET 2 OF 15 SHEETS

W.O. NO.

CONTRACTOR MUST NOTIFY THE BELOW LISTED AGENCY AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION :

UNDERGROUND SERVICE ALERT (USA) 1-800-422-4133

FOR CITY ENGINEER — DATE

| DESCRIPTION | BY | APPROVED | DATE | FILMED |
|---|---|---|---|---|
| FILE NAME: DATE: | | | | |
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| | | | | |
| | | | | |
| AS-BUILT | | | | |

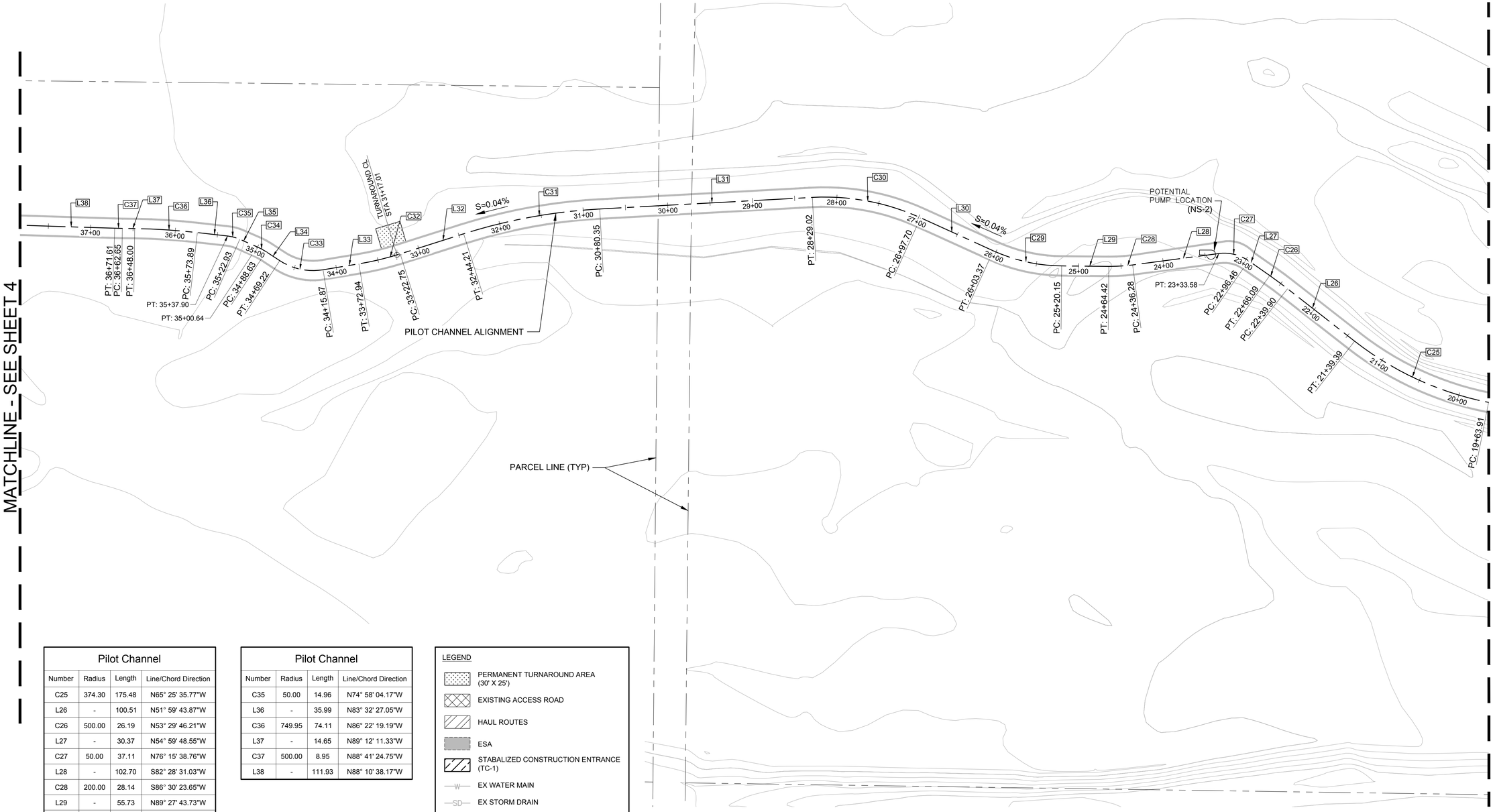
CONTRACTOR _____ DATE STARTED _____
INSPECTOR _____ DATE COMPLETED _____

SECTION HEAD

PROJECT MANAGER

DESIGN ENGINEER

140-1731
LAMBERT COORDINATES




| Pilot Channel | | | |
|---|---|---|---|
| Number | Radius | Length | Line/Chord Direction |
| C25 | 374.30 | 175.48 | N65° 25' 35.77"W |
| L26 | - | 100.51 | N51° 59' 43.87"W |
| C26 | 500.00 | 26.19 | N53° 29' 46.21"W |
| L27 | - | 30.37 | N54° 59' 48.55"W |
| C27 | 50.00 | 37.11 | N76° 15' 38.76"W |
| L28 | - | 102.70 | S82° 28' 31.03"W |
| C28 | 200.00 | 28.14 | S86° 30' 23.65"W |
| L29 | - | 55.73 | N89° 27' 43.73"W |
| C29 | 199.56 | 83.22 | N77° 30' 57.11"W |
| L30 | - | 94.33 | N65° 34' 10.48"W |
| C30 | 273.13 | 131.32 | N79° 20' 36.90"W |
| L31 | - | 251.33 | S86° 52' 56.69"W |
| C31 | 649.31 | 163.85 | S79° 39' 11.16"W |
| L32 | - | 78.54 | S72° 25' 25.63"W |

| Pilot Channel | | | |
|---|---|---|---|
| Number | Radius | Length | Line/Chord Direction |
| C35 | 50.00 | 14.96 | N74° 58' 04.17"W |
| L36 | - | 35.99 | N83° 32' 27.05"W |
| C36 | 749.95 | 74.11 | N86° 22' 19.19"W |
| L37 | - | 14.65 | N89° 12' 11.33"W |
| C37 | 500.00 | 8.95 | N88° 41' 24.75"W |
| L38 | - | 111.93 | N88° 10' 38.17"W |

LEGEND

- PERMANENT TURNAROUND AREA (30' X 25')
- EXISTING ACCESS ROAD
- HAUL ROUTES
- ESA
- STABALIZED CONSTRUCTION ENTRANCE (TC-1)
- W — EX WATER MAIN
- SD — EX STORM DRAIN
- S — EX SEWER MAIN
- SF — SILT FENCE (SE-1)
- FR — FIBER ROLL (SE-5)
- STAGING AREA LIMITS
- MAJOR CONTOUR
- MINOR CONTOUR
- PARCEL
- MHPA
- CHANNEL MAINTENANCE CENTERLINE
- LIMITS OF CHANNEL MAINTENANCE

PLAN NORTH

60' 0' 30' 60' 120' 180'

GRAPHIC SCALE
1 INCH = 60 FT

NOTES:

1. ENTIRE CHANNEL MAINTENANCE AREA SUBJECT TO IN-CHANNEL ENHANCEMENT MITIGATION REQUIREMENTS.
2. SEE SHEET 8 FOR CHANNEL SECTION.

# MAINTENANCE PLANS FOR

# TIJUANA RIVER VALLEY

# PILOT CHANNEL MAINTENANCE

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING DEPARTMENT
SHEET 3 OF 15 SHEETS

W.O. NO.

CONTRACTOR MUST NOTIFY THE BELOW LISTED AGENCY AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION :

UNDERGROUND SERVICE ALERT (USA) 1-800-422-4133

FOR CITY ENGINEER — DATE

| DESCRIPTION | BY | APPROVED | DATE | FILMED |
|---|---|---|---|---|
| FILE NAME: DATE: | | | | |
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| | | | | |
| AS-BUILT | | | | |

CONTRACTOR _____ DATE STARTED _____
INSPECTOR _____ DATE COMPLETED _____

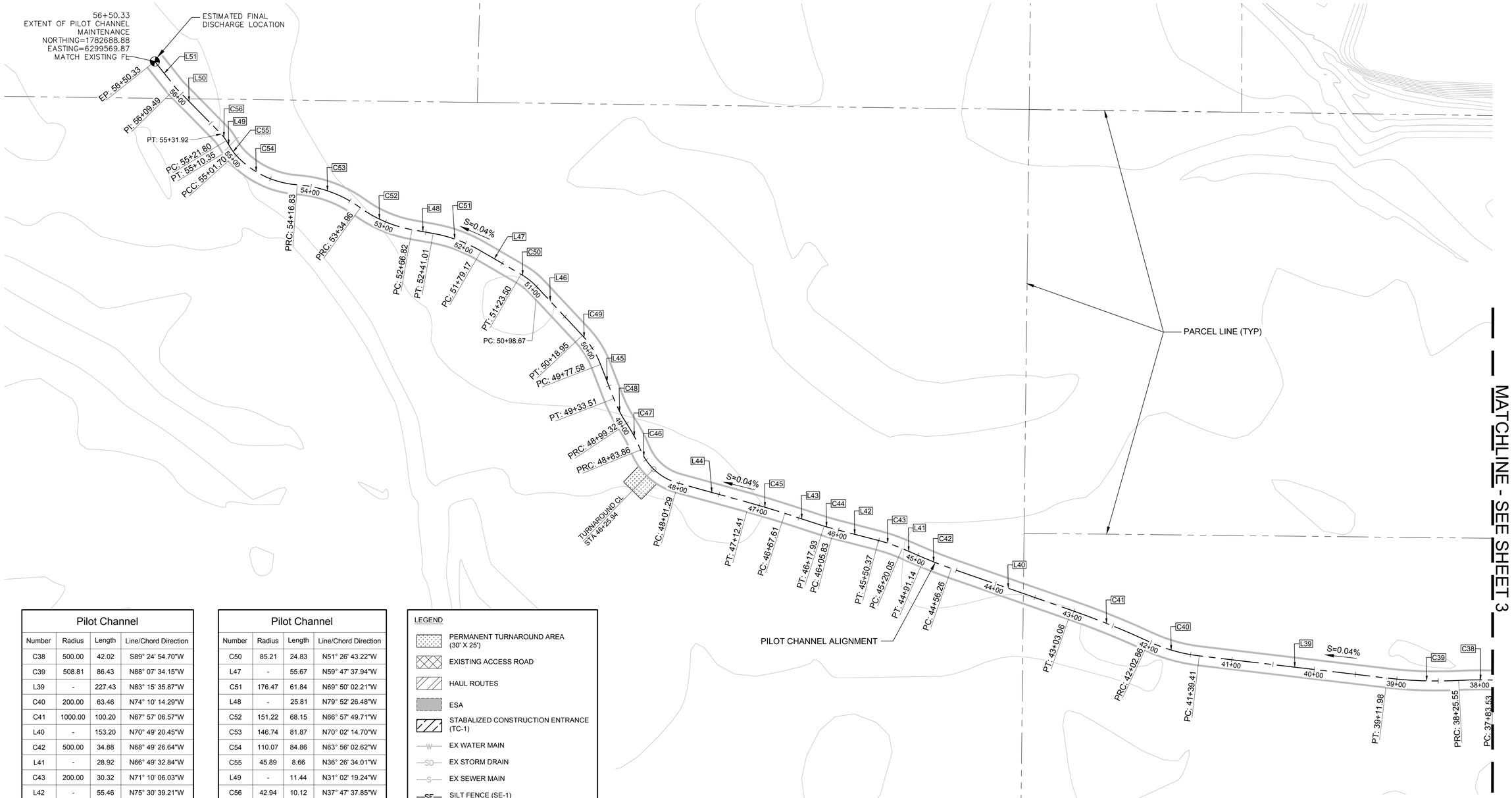
SECTION HEAD

PROJECT MANAGER

DESIGN ENGINEER

140-1731
LAMBERT COORDINATES

P:\101.Engineering\San Diego\Storm Water Division\8685 TO 20 TJ Biomonitoring\DUDEK WORK PRODUCTS\DOCUMENTS\TJ SCR\Construction Plans\CAD\3-PILOT 7/14/2015 8:24 AM




| Pilot Channel | | | |
|---|---|---|---|
| Number | Radius | Length | Line/Chord Direction |
| C38 | 500.00 | 42.02 | S89° 24' 54.70"W |
| C39 | 508.81 | 86.43 | N88° 07' 34.15"W |
| L39 | - | 227.43 | N83° 15' 35.87"W |
| C40 | 200.00 | 63.46 | N74° 10' 14.29"W |
| C41 | 1000.00 | 100.20 | N67° 57' 06.57"W |
| L40 | - | 153.20 | N70° 49' 20.45"W |
| C42 | 500.00 | 34.88 | N68° 49' 26.64"W |
| L41 | - | 28.92 | N66° 49' 32.84"W |
| C43 | 200.00 | 30.32 | N71° 10' 06.03"W |
| L42 | - | 55.46 | N75° 30' 39.21"W |
| C44 | 200.00 | 12.11 | N73° 46' 36.53"W |
| L43 | - | 49.68 | N72° 02' 33.85"W |
| C45 | 1000.00 | 44.79 | N73° 19' 33.60"W |
| L44 | - | 88.88 | N74° 36' 33.35"W |
| C46 | 68.31 | 62.58 | N48° 21' 57.31"W |
| C47 | 177.29 | 35.46 | N27° 51' 08.17"W |
| C48 | 157.40 | 34.19 | N27° 21' 33.73"W |

| Pilot Channel | | | |
|---|---|---|---|
| Number | Radius | Length | Line/Chord Direction |
| C50 | 85.21 | 24.83 | N51° 26' 43.22"W |
| L47 | - | 55.67 | N59° 47' 37.94"W |
| C51 | 176.47 | 61.84 | N69° 50' 02.21"W |
| L48 | - | 25.81 | N79° 52' 26.48"W |
| C52 | 151.22 | 68.15 | N66° 57' 49.71"W |
| C53 | 146.74 | 81.87 | N70° 02' 14.70"W |
| C54 | 110.07 | 84.86 | N63° 56' 02.62"W |
| C55 | 45.89 | 8.66 | N36° 26' 34.01"W |
| L49 | - | 11.44 | N31° 02' 19.24"W |
| C56 | 42.94 | 10.12 | N37° 47' 37.85"W |
| L50 | - | 77.56 | N44° 32' 56.46"W |
| L51 | - | 40.84 | N38° 26' 18.68"W |

LEGEND

- PERMANENT TURNAROUND AREA (30' X 25')
- EXISTING ACCESS ROAD
- HAUL ROUTES
- ESA
- STABALIZED CONSTRUCTION ENTRANCE (TC-1)
- EX WATER MAIN
- EX STORM DRAIN
- EX SEWER MAIN
- SILT FENCE (SE-1)
- FIBER ROLL (SE-5)
- STAGING AREA LIMITS
- MAJOR CONTOUR
- MINOR CONTOUR
- PARCEL
- MHPA
- CHANNEL MAINTENANCE CENTERLINE
- LIMITS OF CHANNEL MAINTENANCE

PLAN NORTH

60' 0' 30' 60' 120' 180'

GRAPHIC SCALE
1 INCH = 60 FT

NOTES:

1. ENTIRE CHANNEL MAINTENANCE AREA SUBJECT TO IN-CHANNEL ENHANCEMENT MITIGATION REQUIREMENTS.
2. SEE SHEET 8 FOR CHANNEL SECTION.

# MAINTENANCE PLANS FOR

# TIJUANA RIVER VALLEY

# PILOT CHANNEL MAINTENANCE

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING DEPARTMENT
SHEET 4 OF 15 SHEETS

W.O. NO.

CONTRACTOR MUST NOTIFY THE BELOW LISTED AGENCY AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION :

UNDERGROUND SERVICE ALERT (USA) 1-800-422-4133

FOR CITY ENGINEER _____ DATE _____

| DESCRIPTION | BY | APPROVED | DATE | FILMED |
|---|---|---|---|---|
| FILE NAME: DATE: | | | | |
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| AS-BUILT | | | | |

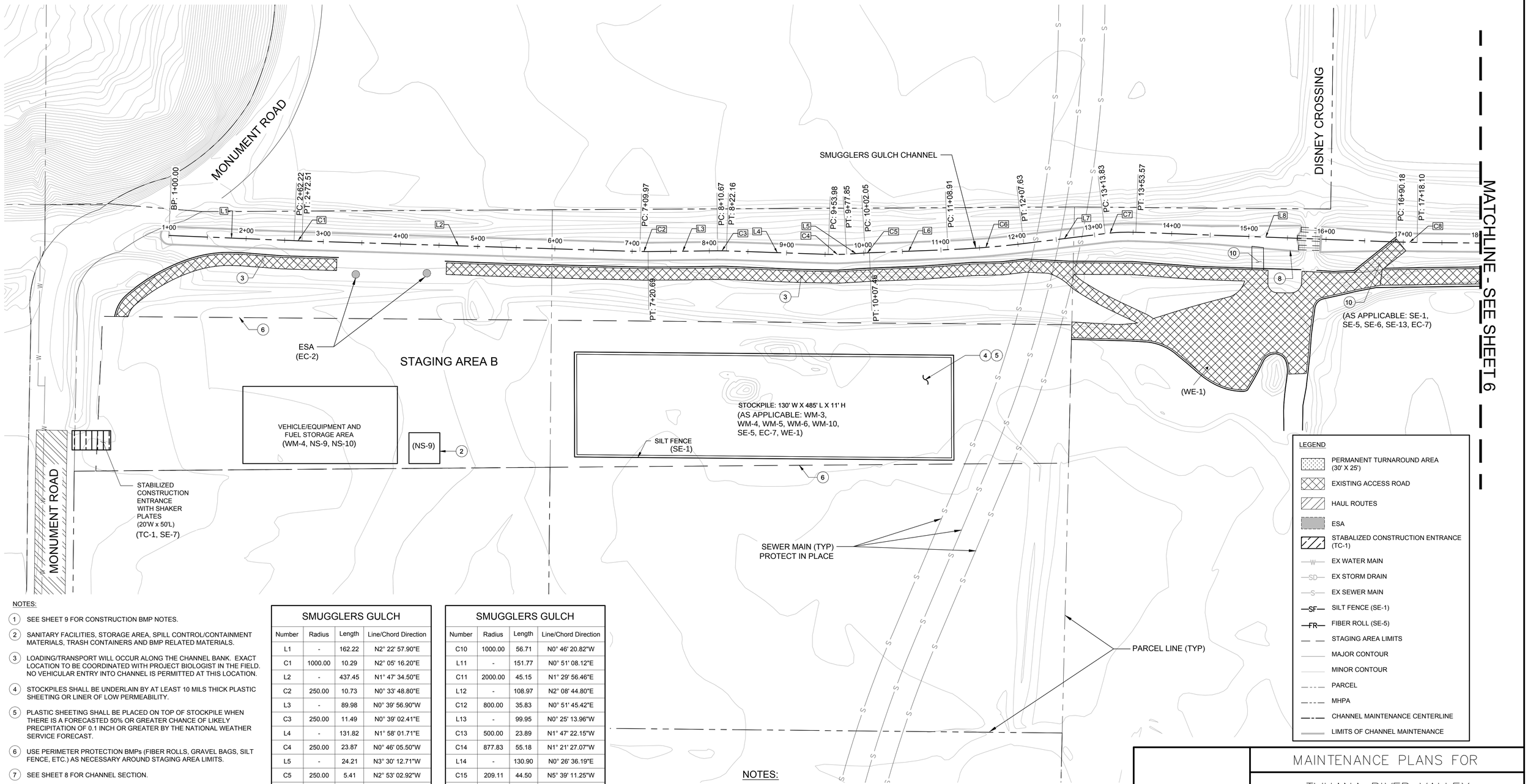
CONTRACTOR _____ DATE STARTED _____
INSPECTOR _____ DATE COMPLETED _____

SECTION HEAD

PROJECT MANAGER

DESIGN ENGINEER

140-1731
LAMBERT COORDINATES




NOTES:

1. SEE SHEET 9 FOR CONSTRUCTION BMP NOTES.
2. SANITARY FACILITIES, STORAGE AREA, SPILL CONTROL/CONTAINMENT MATERIALS, TRASH CONTAINERS AND BMP RELATED MATERIALS.
3. LOADING/TRANSPORT WILL OCCUR ALONG THE CHANNEL BANK. EXACT LOCATION TO BE COORDINATED WITH PROJECT BIOLOGIST IN THE FIELD. NO VEHICULAR ENTRY INTO CHANNEL IS PERMITTED AT THIS LOCATION.
4. STOCKPILES SHALL BE UNDERLAIN BY AT LEAST 10 MILS THICK PLASTIC SHEETING OR LINER OF LOW PERMEABILITY.
5. PLASTIC SHEETING SHALL BE PLACED ON TOP OF STOCKPILE WHEN THERE IS A FORECASTED 50% OR GREATER CHANCE OF LIKELY PRECIPITATION OF 0.1 INCH OR GREATER BY THE NATIONAL WEATHER SERVICE FORECAST.
6. USE PERIMETER PROTECTION BMPs (FIBER ROLLS, GRAVEL BAGS, SILT FENCE, ETC.) AS NECESSARY AROUND STAGING AREA LIMITS.
7. SEE SHEET 8 FOR CHANNEL SECTION.
8. DEBRIS COLLECTED ON SLOPE AREAS DIRECTLY UPSTREAM OF DISNEY CROSSING SHALL BE REMOVED. NO CHANGES TO SLOPE GRADING SHALL BE MADE.
9. CHANNEL WIDTH ±33' TO ALLOW CLEANING OF THE EXISTING CULVERTS.
10. ACCESS POINT TO CHANNEL (15' WIDTH) FOR EQUIPMENT. EXACT LOCATION TO BE COORDINATED WITH PROJECT BIOLOGIST IN THE FIELD.
11. BMPS WILL ONLY BE INSTALLED IN ACTIVE WORK AREAS AND ALONG ACTIVE ACCESS ROADS BASED ON THE PHASING OF THE CHANNEL MAINTENANCE.

PLAN NORTH

SMUGGLERS GULCH

| Number | Radius | Length | Line/Chord Direction |
|---|---|---|---|
| L1 | - | 162.22 | N2° 22' 57.90"E |
| C1 | 1000.00 | 10.29 | N2° 05' 16.20"E |
| L2 | - | 437.45 | N1° 47' 34.50"E |
| C2 | 250.00 | 10.73 | N0° 33' 48.80"E |
| L3 | - | 89.98 | N0° 39' 56.90"W |
| C3 | 250.00 | 11.49 | N0° 39' 02.41"E |
| L4 | - | 131.82 | N1° 58' 01.71"E |
| C4 | 250.00 | 23.87 | N0° 46' 05.50"W |
| L5 | - | 24.21 | N3° 30' 12.71"W |
| C5 | 250.00 | 5.41 | N2° 53' 02.92"W |
| L6 | - | 101.46 | N2° 15' 53.12"W |
| C6 | 1200.00 | 98.72 | N4° 37' 17.06"W |
| L7 | - | 106.20 | N6° 58' 41.01"W |
| C7 | 250.00 | 39.74 | N2° 25' 25.69"W |
| L8 | - | 336.61 | N2° 07' 49.63"E |
| C8 | 1000.00 | 27.92 | N1° 19' 50.02"E |
| L9 | - | 128.56 | N0° 31' 50.42"E |
| C9 | 800.00 | 40.88 | N0° 55' 59.67"W |
| L10 | - | 42.63 | N2° 23' 49.75"W |

SMUGGLERS GULCH

| Number | Radius | Length | Line/Chord Direction |
|---|---|---|---|
| C10 | 1000.00 | 56.71 | N0° 46' 20.82"W |
| L11 | - | 151.77 | N0° 51' 08.12"E |
| C11 | 2000.00 | 45.15 | N1° 29' 56.46"E |
| L12 | - | 108.97 | N2° 08' 44.80"E |
| C12 | 800.00 | 35.83 | N0° 51' 45.42"E |
| L13 | - | 99.95 | N0° 25' 13.96"W |
| C13 | 500.00 | 23.89 | N1° 47' 22.15"W |
| C14 | 877.83 | 55.18 | N1° 21' 27.07"W |
| L14 | - | 130.90 | N0° 26' 36.19"E |
| C15 | 209.11 | 44.50 | N5° 39' 11.25"W |
| L15 | - | 94.88 | N11° 44' 58.69"W |
| C16 | 168.26 | 32.17 | N17° 13' 38.15"W |
| C17 | 221.94 | 18.26 | N20° 20' 52.47"W |
| C18 | 67.25 | 26.99 | N29° 29' 20.25"W |
| L16 | - | 16.56 | N40° 59' 13.15"W |
| C19 | 450.62 | 57.32 | N44° 37' 51.56"W |
| C20 | 283.02 | 39.98 | N44° 13' 39.66"W |
| L17 | - | 156.31 | N40° 10' 49.34"W |

NOTES:

1. ENTIRE CHANNEL MAINTENANCE AREA SUBJECT TO IN-CHANNEL ENHANCEMENT MITIGATION REQUIREMENTS.
2. SEE SHEET 8 FOR CHANNEL SECTION.

# MAINTENANCE PLANS FOR

# TIJUANA RIVER VALLEY

# SMUGGLERS GULCH MAINTENANCE

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING DEPARTMENT
SHEET 5 OF 15 SHEETS

W.O. NO.

CONTRACTOR MUST NOTIFY THE BELOW LISTED AGENCY AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION :

UNDERGROUND SERVICE ALERT (USA) 1-800-422-4133

| FOR CITY ENGINEER | DATE | | | |
|---|---|---|---|---|
| DESCRIPTION | BY | APPROVED | DATE | FILMED |
| FILE NAME: DATE: | | | | |
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| AS-BUILT | | | | |

CONTRACTOR _____ DATE STARTED _____
INSPECTOR _____ DATE COMPLETED _____

SECTION HEAD

PROJECT MANAGER

DESIGN ENGINEER

140-1731
LAMBERT COORDINATES

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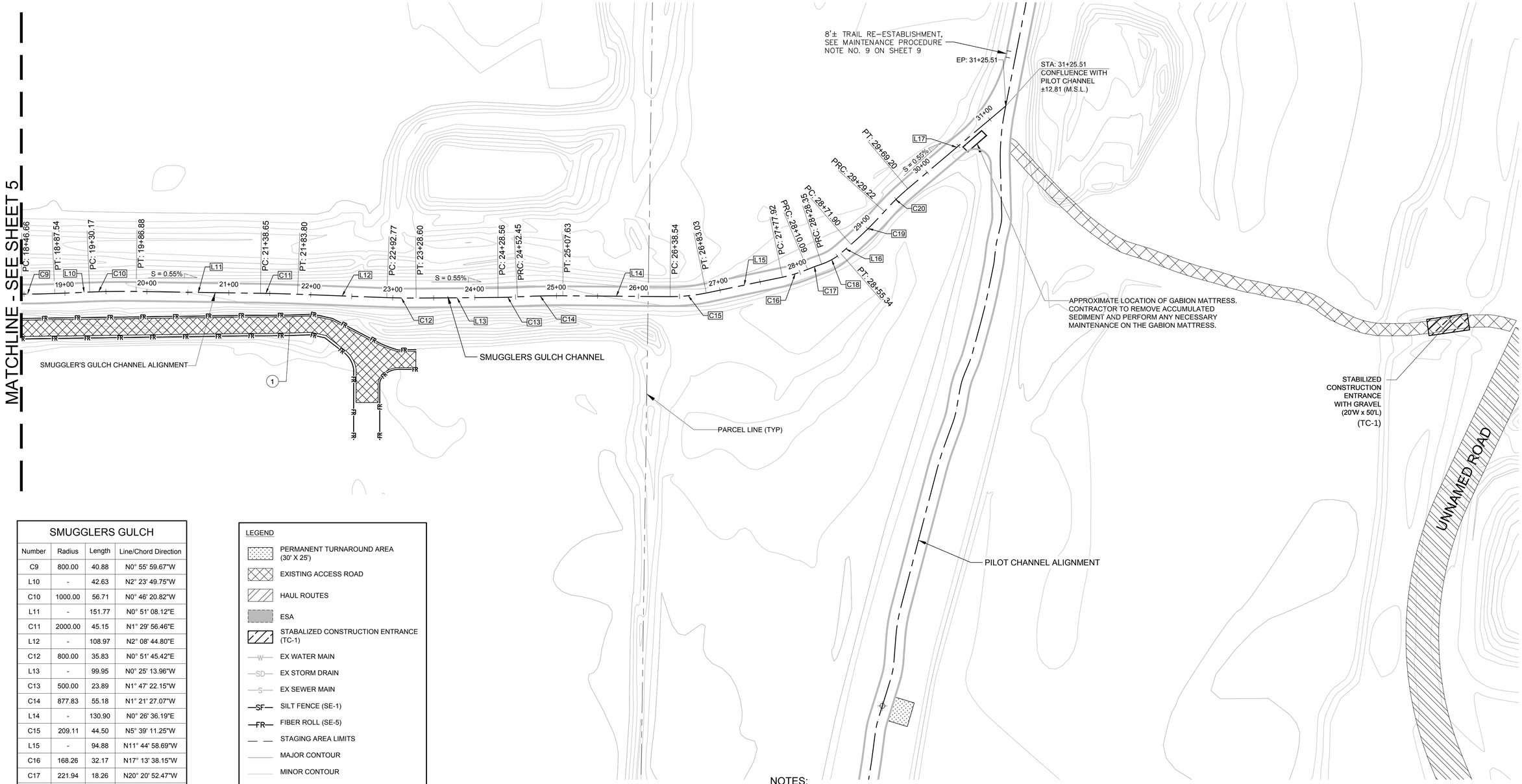


| SMUGGLERS GULCH | | | |
|---|---|---|---|
| Number | Radius | Length | Line/Chord Direction |
| C9 | 800.00 | 40.88 | N0° 55' 59.67"W |
| L10 | - | 42.63 | N2° 23' 49.75"W |
| C10 | 1000.00 | 56.71 | N0° 46' 20.82"W |
| L11 | - | 151.77 | N0° 51' 08.12"E |
| C11 | 2000.00 | 45.15 | N1° 29' 56.46"E |
| L12 | - | 108.97 | N2° 08' 44.80"E |
| C12 | 800.00 | 35.83 | N0° 51' 45.42"E |
| L13 | - | 99.95 | N0° 25' 13.96"W |
| C13 | 500.00 | 23.89 | N1° 47' 22.15"W |
| C14 | 877.83 | 55.18 | N1° 21' 27.07"W |
| L14 | - | 130.90 | N0° 26' 36.19"E |
| C15 | 209.11 | 44.50 | N5° 39' 11.25"W |
| L15 | - | 94.88 | N11° 44' 58.69"W |
| C16 | 168.26 | 32.17 | N17° 13' 38.15"W |
| C17 | 221.94 | 18.26 | N20° 20' 52.47"W |
| C18 | 67.25 | 26.99 | N29° 29' 20.25"W |
| L16 | - | 16.56 | N40° 59' 13.15"W |
| C19 | 450.62 | 57.32 | N44° 37' 51.56"W |
| C20 | 283.02 | 39.98 | N44° 13' 39.66"W |
| L17 | - | 156.31 | N40° 10' 49.34"W |

LEGEND

- PERMANENT TURNAROUND AREA (30' X 25')
- EXISTING ACCESS ROAD
- HAUL ROUTES
- ESA
- STABALIZED CONSTRUCTION ENTRANCE (TC-1)
- EX WATER MAIN
- EX STORM DRAIN
- EX SEWER MAIN
- SILT FENCE (SE-1)
- FIBER ROLL (SE-5)
- STAGING AREA LIMITS
- MAJOR CONTOUR
- MINOR CONTOUR
- PARCEL
- MHPA
- CHANNEL MAINTENANCE CENTERLINE
- LIMITS OF CHANNEL MAINTENANCE

PLAN NORTH

60' 0' 30' 60' 120' 180'

GRAPHIC SCALE
1 INCH = 60 FT

NOTES:

1. ENTIRE CHANNEL MAINTENANCE AREA SUBJECT TO IN-CHANNEL ENHANCEMENT MITIGATION REQUIREMENTS.
2. SEE SHEET 8 FOR CHANNEL SECTION.

NOTES:

(1) LOADING/TRANSPORT WILL OCCUR ALONG THE CHANNEL BANK. EXACT LOCATION TO BE COORDINATED WITH PROJECT BIOLOGIST IN THE FIELD. NO VEHICULAR ENTRY INTO CHANNEL IS PERMITTED AT THIS LOCATION.

(2) SEE SHEET 8 FOR CHANNEL SECTION.

(3) BMPS WILL ONLY BE INSTALLED IN ACTIVE WORK AREAS AND ALONG ACTIVE ACCESS ROADS BASED ON THE PHASING OF THE CHANNEL MAINTENANCE.

# MAINTENANCE PLANS FOR

# TIJUANA RIVER VALLEY

# SMUGGLERS GULCH MAINTENANCE

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING DEPARTMENT
SHEET 6 OF 15 SHEETS

W.O. NO.

CONTRACTOR MUST NOTIFY THE BELOW LISTED AGENCY AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION :

UNDERGROUND SERVICE ALERT (USA) 1-800-422-4133

FOR CITY ENGINEER — DATE

| DESCRIPTION | BY | APPROVED | DATE | FILMED |
|---|---|---|---|---|
| FILE NAME: DATE: | | | | |
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| | | | | |
| | | | | |
| AS-BUILT | | | | |

CONTRACTOR _____ DATE STARTED _____
INSPECTOR _____ DATE COMPLETED _____

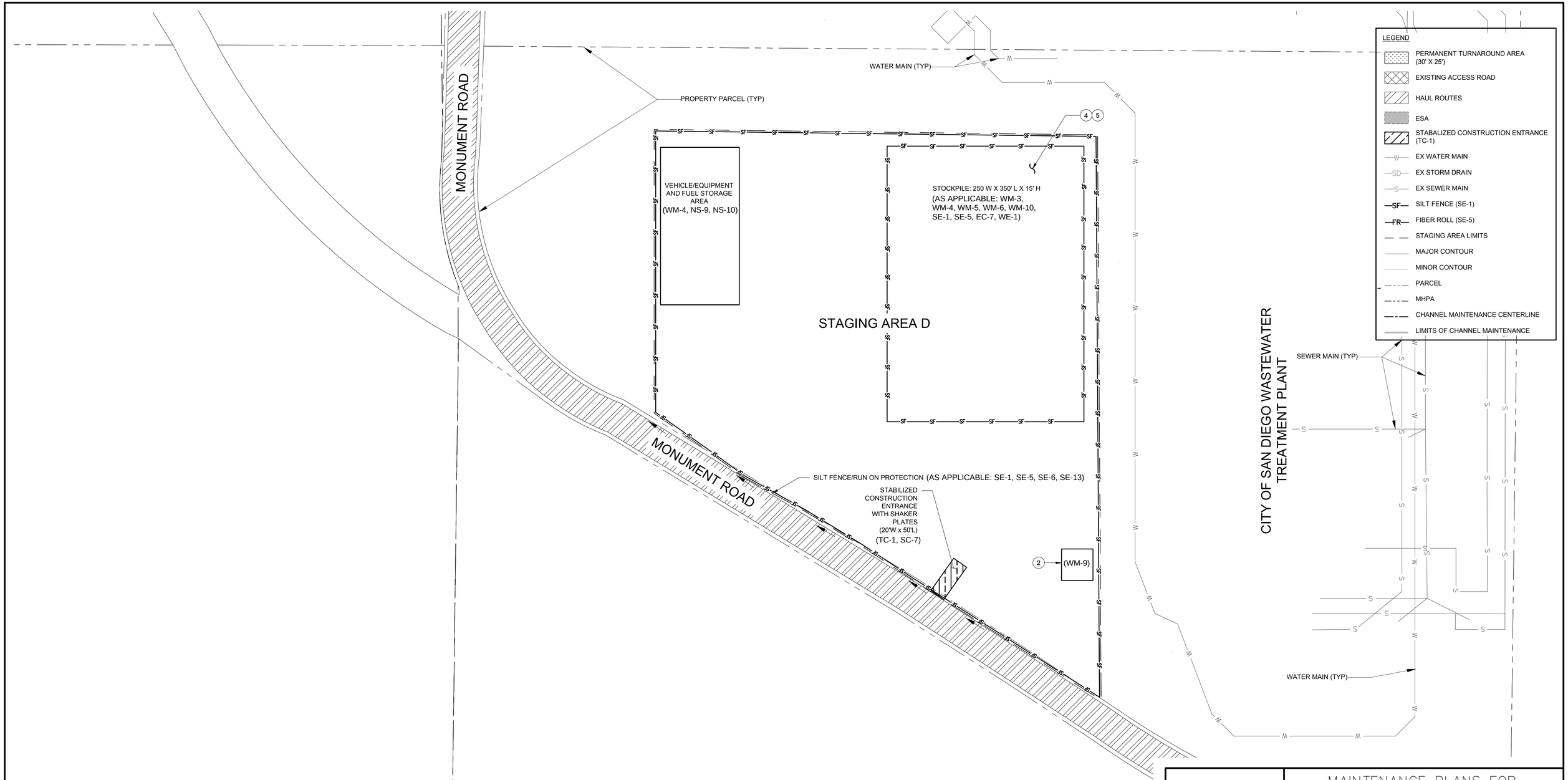
SECTION HEAD

PROJECT MANAGER

DESIGN ENGINEER

140-1731
LAMBERT COORDINATES

P:\101.Engineering\San Diego\Storm Water Division\8685 TO 20 TJ Biomonitoring\DUDEK WORK PRODUCTS\DOCUMENTS\TJ SCR\Construction Plans\CAD\6-SMUGGLERS 7/14/2015 8:26 AM




PLAN NORTH

60' 0' 30' 60' 120' 180'

GRAPHIC SCALE
1 INCH = 60 FT

NOTES:

1. SEE SHEET 9 FOR CONSTRUCTION BMP NOTES.
2. SANITARY FACILITIES STORAGE AREA, SPILL CONTROL/CONTAINMENT MATERIALS, TRASH CONTAINERS AND BMP RELATED MATERIALS.
3. STAGING AREA D TO BE USED FOR PROCESSING EXCAVATED MATERIALS.
4. STOCKPILES SHALL BE UNDERLAIN BY AT LEAST 10 MILS THICK PLASTIC SHEETING OR LINER OF LOW PERMEABILITY.
5. PLASTIC SHEETING SHALL BE PLACED ON TOP OF STOCKPILE WHEN THERE IS A FORECASTED 50% OR GREATER CHANCE OF LIKELY PRECIPITATION OF 0.1 INCH OR GREATER BY THE NATIONAL WEATHER SERVICE FORECAST.

# MAINTENANCE PLANS FOR

# TIJUANA RIVER VALLEY

# STAGING AREA D

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING DEPARTMENT
SHEET 7 OF 15 SHEETS

W.O. NO.

CONTRACTOR MUST NOTIFY THE BELOW LISTED AGENCY AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION :

UNDERGROUND SERVICE ALERT (USA) 1-800-422-4133

FOR CITY ENGINEER _____ DATE _____

| DESCRIPTION | BY | APPROVED | DATE | FILMED |
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CONTRACTOR _____ DATE STARTED _____
INSPECTOR _____ DATE COMPLETED _____

SECTION HEAD

PROJECT MANAGER

DESIGN ENGINEER

140-1731
LAMBERT COORDINATES



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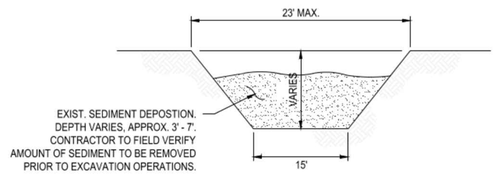
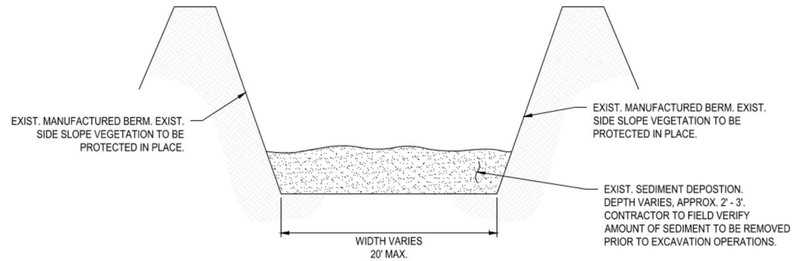



TIJUANA RIVER PILOT CHANNEL SECTION (TYPICAL)
NOT TO SCALE




SMUGGLER'S GULCH CHANNEL SECTION (TYPICAL)
NOT TO SCALE

# MAINTENANCE PLANS FOR

# TIJUANA RIVER VALLEY

# CROSS SECTIONS

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING DEPARTMENT
SHEET 8 OF 15 SHEETS

W.O. NO.

CONTRACTOR MUST NOTIFY THE BELOW LISTED AGENCY AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION :

UNDERGROUND SERVICE ALERT (USA) 1-800-422-4133

FOR CITY ENGINEER _____ DATE _____

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CONTRACTOR _____ DATE STARTED _____
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## CONSTRUCTION BMP NOTES:

1. ALL BEST MANAGEMENT PRACTICES (BMPs) WILL BE IMPLEMENTED PRIOR TO OR CONCURRENT WITH CONSTRUCTION AND MAINTAINED THROUGHOUT THE PROJECT. A QUALIFIED CONTACT PERSON WILL BE RESPONSIBLE FOR IMPLEMENTING THE WATER POLLUTION CONTROL PLAN (WPCP.) ALL WORK SHALL BE COMPLETED BETWEEN SEPTEMBER 15TH AND FEBRUARY 15TH UNLESS AN EXTENSION IS GRANTED IN CONFORMANCE WITH ALL APPLICABLE PERMITS.

2. CONTRACTOR WILL LIMIT ALL CONSTRUCTION RELATED ACTIVITIES TO THE PROJECT FOOTPRINT.

3. EXISTING VEGETATION TO BE PRESERVED IN PLACE SHALL BE CLEARLY MARKED WITH A BUFFER AREA FOLLOWING THE GUIDANCE OF BMP FACT SHEET EC-2.

4. REMOVAL OF VEGETATION MUST OCCUR BY HAND, MECHANICALLY, OR USING U.S. ENVIRONMENTAL PROTECTION AGENCY APPROVED HERBICIDES DEPLOYED WITH APPLICABLE BMPs TO PREVENT IMPACTS TO BENEFICIAL USES OF WATERS OF THE U.S. AND/OR STATE. USE OF AQUATIC PESTICIDES MUST BE DONE IN ACCORDANCE WITH STATE WATER RESOURCES CONTROL BOARD WATER QUALITY ORDER NO. 2004-0009-DWQ, AND ANY SUBSEQUENT REISSUANCE AS APPLICABLE. REMOVAL OF VEGETATION MUST OCCUR OUTSIDE OF THE AVIAN NESTING SEASON (MARCH 15-AUGUST 31).

5. REMOVAL AND DISPOSAL OF EXOTIC INVASIVE SPECIES SHALL BE DONE IN A MANNER THAT PREVENTS THE SPREAD OF EXOTIC INVASIVE SPECIES TO OTHER AREAS.

6. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ADEQUATE WIND EROSION CONTROL IS AVAILABLE ONSITE FOLLOWING BMP FACT SHEET WE-1.

7. STABILIZED CONSTRUCTION ROADWAYS AND ENTRANCE/EXITS WILL BE INSTALLED TO PREVENT TRACKING FOLLOWING THE GUIDANCE OF BMP FACT SHEET TC-1 AND TC-2.

8. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANUP OF SILT AND MUD ON STREETS DUE TO EXCAVATION AND STOCKPILING ACTIVITIES. STREET SWEEPING AND VACUUMING WILL BE MANAGED FOLLOWING THE GUIDANCE OF BMP FACT SHEET SE-7.

9. THE PERIMETER OF THE SITES SHALL BE PROTECTED AGAINST RUN-ON AND RUNOFF USING LINEAR SEDIMENT BARRIERS SUCH AS DRAINAGE SWALES, SILT FENCE, FIBER ROLLS, AND/OR GRAVEL BAG BERMS. THE SEDIMENT CONTROL BMPs MAY BE USED INTERCHANGEABLY BASED ON SITE CONDITIONS AND STORMWATER CONCENTRATION.

10. CONTRACTOR TO PLACE LINEAR SEDIMENT BARRIERS AROUND WORK ZONE FOLLOWING THE GUIDANCE OF BMP FACT SHEETS SC-1, SC-5, SC-6 AND/OR SC-8. SC-1 OR SC-5 SHALL BE USED WHERE APPROPRIATE IN CONJUNCTION WITH CONSTRUCTION FENCE, WHICH WILL BE USED AS SUPPORT. FIBER ROLLS MUST BE ADEQUATELY SECURED SO THAT STORMWATER CANNOT GET AROUND OR UNDER THEM.

11. GRAVEL BAG BERMS MAY BE USED TO FORM BARRIERS ACROSS SLOPES TO INTERCEPT RUNOFF AND RELEASE IT AS SHEET FLOW, PROVIDING SOME SEDIMENT REMOVAL. GRAVEL BAGS CAN BE USED WHERE FLOWS ARE MODERATELY CONCENTRATED, SUCH AS IN DITCHES AND SWALES. GRAVEL BAGS SHALL BE USED AS A LINEAR SEDIMENT BARRIER IF FLOW EXCEEDS THE ABILITY OF FIBER ROLLS TO CONTROL. GRAVEL BAG BERMS WILL BE IMPLEMENTED FOLLOWING THE GUIDANCE OF BMP FACT SHEET SE-6.

12. FIBER ROLLS SHALL ALSO BE USED IN VEGETATED AREAS, ON SLOPES, AND TO FORM BERMS AROUND STOCKPILES. FIBER ROLLS SHALL BE IMPLEMENTED FOLLOWING THE GUIDANCE OF BMP FACT SHEET SC-5. SILT FENCE MAY ALSO BE USED AT TOES OF STOCKPILES.

13. WEATHER TRIGGERED ACTION PLAN SHALL BE IMPLEMENTED WHEN THERE IS A FORECASTED 50% OR GREATER CHANCE OF LIKELY PRECIPITATION OF 0.1 INCH OR GREATER BY THE NATIONAL WEATHER SERVICE FORECAST.

14. SOIL ROUGHENING CAN BE USED IN CONJUNCTION WITH HYDRAULICALLY APPLIED STABILIZATION METHODS, GEOTEXTILES, FIBER ROLLS, OR MULCH TO PROTECT, TEMPORARY STOCKPILES, OR SWALES FOLLOWING THE GUIDANCE OF BMP FACT SHEETS EC-4, EC-5, & EC-7.

15. CONTRACTOR SHALL RESTORE ALL EROSION CONTROL DEVICES TO WORKING ORDER AFTER EACH RUNOFF-PRODUCING RAINFALL.

16. TEMPORARY EROSION OR SEDIMENT CONTROL MEASURES WILL BE REMOVED UPON COMPLETION OF MAINTENANCE UNLESS THEIR REMOVAL WOULD RESULT IN GREATER ENVIRONMENTAL IMPACT THAN LEAVING THEM IN PLACE.

17. WASTE AND STOCKPILES SHALL BE MANAGED FOLLOWING THE GUIDANCE OF BMP FACT SHEETS WM-3, WM-5, WM-6, WM-7, AND WM-10. COMPOSTABLE GREEN WASTE MATERIALS SHALL BE TRANSPORTED TO AN APPROVED COMPOSTING FACILITY WHEN FEASIBLE.

18. EXPOSED WASTE MATERIALS AND SOIL STOCKPILES SHALL BE TEMPORARILY STORED IN STAGING AREAS B AND D UNTIL REMOVAL TO A PERMITTED DISPOSAL FACILITY. EXPOSED WASTE MATERIALS AND SOIL STOCKPILES SHALL BE PROTECTED IN PLACE USING SILT FENCE, FIBER ROLLS, GRAVEL BAGS, PLASTIC COVERS, AND/OR DRAINAGE SWALES FOLLOWING THE GUIDANCE OF BMP FACT SHEETS SE-1, SE-5, SE-6, EC-7 AND/OR EC-9. MANAGEMENT OF STOCKPILES TEMPORARILY MUST ALSO COMPLY WITH R9-2007-0104, CONDITIONAL WAIVERS OF WASTE DISCHARGE REQUIREMENTS FOR SPECIFIC TYPES OF DISCHARGE WITHIN THE SAN DIEGO REGION, CONDITIONAL WAIVER 8.

19. EXCAVATED MATERIALS FROM THE CHANNELS SHALL BE TRANSFERED TO STAGING AREA D TO BE SUFFICIENTLY DRIED AND TO BE PROCESSED TO SEPARATE OUT SEDIMENT, VEGETATION, TRASH AND TIRES.

20. WASTE TIRES SHALL BE SEPARATED FROM EXCAVATED MATERIALS AND TRANSPORTED TO AN APPROPRIATE DISPOSAL FACILITY.. IF MORE THAN NINE TIRES ARE IN A VEHICLE OR WASTE BIN AT ANY ONE TIME, THEY SHALL BE TRANSPORTED UNDER A COMPLETED COMPREHENSIVE TRIP LOG (CTL) TO DOCUMENT THAT THE TIRES WERE TAKEN TO AN APPROPRIATE DISPOSAL FACILITY.

21. EXCAVATED MATERIALS WILL BE REUSED, WHENEVER POSSIBLE, AS FILL MATERIAL, AGGREGATE, SAND REPLENISHMENT OR OTHER RAW MATERIAL USES. RE-USED MATERIAL (AGGREGATES, SOIL, SAND, OR SILT) SHALL BE DOCUMENTED IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

22. HAZARDOUS MATERIALS USED DURING MAINTENANCE WILL NOT BE STORED WITHIN 50 FEET FROM STORM WATER FACILITIES. HAZARDOUS MATERIALS SHALL BE MANAGED AND STORED IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. A REGISTERED FIRST-RESPONSE, PROFESSIONAL HAZARDOUS MATERIALS CLEAN-UP/REMEDIATION SERVICE SHALL BE LOCALLY AVAILABLE ON CALL.

23. MAINTENANCE-RELATED TRASH WILL BE STORED IN AN APPROPRIATE RECEPTACLE WITH A COVER IN THE STAGING AREAS AT LEAST 150 FEET FROM STORM WATER FACILITIES, AND TRASH RECEPTACLES WILL BE EMPTIED/REMOVED REGULARLY (AT LEAST ONCE PER WEEK).

24. THE TREATMENT, STORAGE, AND DISPOSAL OF WASTEWATER DURING THE LIFE OF THE PROJECT MUST BE DONE IN ACCORDANCE WITH WASTE DISCHARGE REQUIREMENTS ESTABLISHED BY THE SAN DIEGO WATER BOARD PURSUANT TO CWC 13260.

25. CONSTRUCTION DEWATERING OPERATIONS ARE NOT ANTICIPATED FOR THE MAINTENANCE ACTIVITIES DUE TO DRY WEATHER EXCAVATION REQUIREMENTS. IF THEY ARE NEEDED, CONSTRUCTION DEWATERING OPERATIONS SHALL BE MANAGED FOLLOWING THE GUIDANCE OF BMP FACT SHEET NS-2. GROUNDWATER DEWATERING SHALL BE MANAGED IN ACCORDANCE WITH THE GENERAL WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES FROM TEMPORARY GROUNDWATER EXTRACTION AND SIMILAR WASTE DISCHARGES TO SAN DIEGO BAY, TRIBUTARIES THERETO UNDER TIDAL INFLUENCE, AND STORM DRAINS OR OTHER CONVEYANCE SYSTEMS TRIBUTARY THERETO (WDR) ORDER NO. R9-2007-0034, NPDES NO. CAG919001.

26. SANITARY FACILITIES WILL BE PROVIDED ONSITE FOR THE USE OF PERSONNEL AND WILL BE PROPERLY MAINTAINED, INCLUDING BEING EQUIPPED WITH SECONDARY CONTAINMENT FOLLOWING THE GUIDANCE OF BMP FACT SHEET WM-9

27. SPILLS SHALL BE MANAGED FOLLOWING THE GUIDANCE OF BMP FACT SHEET WM-4. SPILL CLEANUP MATERIALS SHALL BE AVAILABLE ONSITE AT ALL TIMES.

28. MATERIAL USE, DELIVERY AND STORAGE SHALL BE MANAGED FOLLOWING THE GUIDANCE OF BMP FACT SHEETS WM-1 AND WM-2.

29. WATER SHALL BE CONSERVED FOLLOWING THE GUIDANCE OF BMP FACT SHEET NS-1 SO AS NOT TO ALLOW UNAUTHORIZED NON-STORMWATER DISCHARGES.

30. BMP MATERIAL SHALL BE STORED ONSITE TO PROVIDE COMPLETE PROTECTION OF EXPOSED AREAS AND PREVENT OFFSITE SEDIMENT TRANSPORT.

31. VEHICLE AND EQUIPMENT FUELING/MAINTENANCE SHALL BE MANAGED FOLLOWING THE GUIDANCE OF BMP FACT SHEETS NS-9 AND NS-10. THE FUELING AREA SHALL BE LOCATED AT LEAST 100 FEET AWAY FROM THE CHANNELS IN STAGING AREAS B AND D. NO ROUTINE MAINTENANCE AND NO STORAGE OF PETROLEUM PRODUCTS OR CHEMICALS ARE PREMITTED ONSITE. RE-FUELING WILL BE RESTRICTED TO HEAVY EARTH MOVING EQUIPMENT (NOT DUMP TRUCKS) AND RESTRICTED TO THE STAGING AREA. EQUIPMENT WILL BE INSPECTED DAILY FOR FLUID LEAKS AND PROMPTLY CLEANED UP.

32. STATIONARY EQUIPMENT (CRANES, MOTORS, PUMPS, ETC.) LOCATED IN OR ADJACENT TO THE CHANNELS SHALL BE POSITIONED OVER DRIP PANS.

33. THE CONTRACTOR SHALL PROVIDE EQUIPMENT NECESSARY TO EXTINGUISH SMALL BRUSH FIRES (FROM SPARKING VEHICLES, ETC.) ON-SITE DURING ALL PHASES OF PROJECT ACTIVITIES, ALONG WITH TRAINED PERSONNEL FOR USE OF SUCH EQUIPMENT.

34. THE CONTRACTOR SHALL MONITOR THE 5 DAY WEATHER FORECAST. IF ANY PRECIPITATION IS FORECASTED, THE SITE SHALL BE SECURED TO PREVENT ANY CONSTRUCTION RELATED MATERIALS FROM LEAVING THE SITE AND ENTERING THE CHANNELS. THE SITE SHALL BE COMPLETELY SECURED ONE DAY PRIOR TO EXPECTED PRECIPITATION UNLESS PRIOR WRITTEN APPROVAL IS PROVIDED BY THE DEPARTMENT OF FISH AND GAME (DFG). NO CONSTRUCTION ACTIVITIES SHALL OCCUR DURING RAIN EVENTS. IF THE AMOUNT OF RAINFALL ACCUMULATED IN THE WATERSHED IS ONE INCH OR GREATER, CONSTRUCTION ACTIVITES SHALL BE HALTED FOR TWO WEEKS OR UNTIL THE FLOWS HAVE RECEDED AND THE MOISTURE CONTENT OF THE SOILS HAVE STABILIZED.

35. SAMPLING AND ANALYSIS, MONITORING AND REPORTING, AND POST-MAINTENANCE MANAGEMENT OF THE PROJECT SHALL BE CONDUCTED AS DETERMINED NECESSARY BY THE CITY OF SAN DIEGO.

36. CHANNELS WILL BE INSPECTED WITHIN 72 HOURS OF THE FIRST 2-YEAR STORM FOLLOWING MAINTENANCE. IF SUBSTANTIAL EROSION HAS OCCURRED, EROSION CONTROL MEASURES RECOMMENDED BY THE FIELD ENGINEER WILL BE IMPLEMENTED TO REMEDIATE EROSION AREAS AND TO MINIMIZE FUTURE EROSION.

37. CONTRACTOR SHALL PROVIDE TRAINING FOR ALL PERSONNEL RESPONSIBLE FOR THE PROPER INSTALLATION, INSPECTION, AND MAINTENANCE OF ONSITE BMPs.

38. THE QUALIFIED CONTACT PERSON WILL ASSIGN A MONITOR FOR DAILY INSPECTION OF THE BMPs. EACH MORNING, THE MONITOR WILL CHECK THE NATIONAL WEATHER SERVICE FORECAST, COMPLETE BMP INSPECTION CHECKLIST, PERFORM ANY NECESSARY BMP MAINTENANCE/REPAIRS, AND REPORT THE RESULTS TO THE QUALIFIED CONTACT PERSON.COMPLETED INSPECTION CHECKLISTS WILL BE KEPT WITH THE WPCP.

39. PREVIOUSLY UNDISTURBED STAGING AREAS WILL BE REVEGETATED WITHIN 30 DAYS OF COMPLETION OF MAINTENANCE ACTIVITIES. THE REVEGETATED AREAS WILL BE MONITORED FOR A PERIOD OF NOT LESS THAN 25 MONTHS AFTER PLANTING.

40. FINAL LOCATION OF CHANNEL CENTERLINE WILL BE DETERMINED IN THE FIELD AND COORDINATED WITH NECESSARY PROJECT SPECIALISTS (BIOLOGIST, HISTORICAL MONITOR, ETC.).

## MAINTENANCE PROCEDURE:

PRE-MAINTENANCE ACTIVITIES:

1. PRECONSTRUCTION MEETING - CONDUCT A PRE-MAINTENANCE MEETING ON-SITE PRIOR TO THE START OF ANY MAINTENANCE ACTIVITY. QUALIFIED SPECIALISTS SHALL: INDICATE/IDENTIFY ANY SENSITIVE BIOLOGICAL/HISTORICAL/WATER QUALITY RESOURCES TO BE AVOIDED DURING MAINTENANCE, FLAG/DELINEATE SENSITIVE RESOURCES TO BE AVOIDED DURING MAINTENANCE, REVIEW SPECIFIC MEASURES TO BE IMPLEMENTED TO MINIMIZE DIRECT/INDIRECT IMPACTS, AND DIRECT CREWS OR OTHER PERSONNEL TO PROTECT SENSITIVE RESOURCES AS NECESSARY.
2. TRAINING - CONDUCT TRAINING FOR PERSONNEL RESPONSIBLE FOR THE PROPER INSTALLATION, INSPECTION, AND MAINTENANCE OF ON-SITE BMPs.

3. PRE-MAINTENANCE AND (POTENTIAL) DURING-MAINTENANCE PUMPING - COORDINATE WITH QUALIFIED BIOLOGIST TO DETERMINE LEAST-SENSITIVE PUMP INSTALLATION LOCATION. ENSURE NOISE ATTENUATION, IF NEEDED, BETWEEN THE PUMP AND SENSITIVE BIOLOGICAL RESOURCES. INSTALL CRITICALLY-SILENCED PUMP ADJACENT TO PONDED WATER PRESENT IN EASTERN PORTION OF PILOT CHANNEL. PUMP PONDED WATER WESTWARD THROUGH TEMPORARY HOSE(S) CONTAINED IN / ADJACENT TO CHANNEL TO LOCATION(S) DOWNSTREAM. DISCHARGE PUMPED WATER WITHIN CHANNEL ALLOWING FOR DISTRIBUTED DISCHARGE AND INFILTRATION. IF NEEDED, CONTINUE PUMPING ACTIVITIES DURING MAINTENANCE TO TRANSPORT PONDED WATER FROM WORK AREA TO WESTERN PORTION OF PILOT CHANNEL.

4. BMP INSTALLATION - INSTALL CONSTRUCTION BMPs (SEDIMENT, EROSION CONTROL, ETC.) IN ACCORDANCE WITH THE WATER POLLUTION CONTROL PLAN ALONG ALL EXISTING ACCESS ROADS AND STAGING AREAS.
5. MOBILIZE EQUIPMENT AT STAGING AREAS B AND D.
6. PERFORM NECESSARY MAINTENANCE ACTIVITIES ALONG THE EXISTING ACCESS ROADS.

METHODOLOGY

1. SG NORTH OF DISNEY CROSSING TOWARD CONFLUENCE AND CULVERTS UNDER DISNEY CROSSING
   - 1.1. EQUIPMENT ENTERS SG AT TEMPORARY ACCESS RAMP NORTH OF DISNEY CROSSING.
   - 1.2. BULLDOZER PUSHES MATERIAL TO A CENTRAL LOCATION IN CHANNEL.
   - 1.3. EXCAVATOR STATIONED AT CENTRAL LOCATION SCOOPS ACCUMULATED MATERIAL AND LOADS INTO ROCK TRUCK
   - 1.4. ROCK TRUCK (USING DESIGNATED TURNAROUND AND ACCESS ROADS) HAULS MATERIAL TO STAGING AREA B
   - 1.5. PLACE BARRIERS AT TRAIL HEADS AND DISNEY CROSSING.
2. CULVERTS UNDER DISNEY BRIDGE
   - 2.1. SKID-STEER (BOBCAT) ENTERS SG AT TEMPORARY ACCESS RAMP.
   - 2.2. SKID-STEER PUSHES MATERIAL IN CULVERTS TO EXCAVATOR STATIONED AT ACCESS RAMP.
   - 2.3. EXCAVATOR LOADS ROCK TRUCK/DUMP TRUCK.
   - 2.4. ROCK/DUMP TRUCK HAULS MATERIAL TO STAGING AREA B.
3. SG SOUTH OF DISNEY CROSSING TOWARD MONUMENT ROAD
   - 3.1. BULLDOZER TO ENTER CHANNEL FROM DESIGNATED ACCESS POINT ALONG ACCESS ROUTE.
   - 3.2. BULLDOZER PUSHES MATERIAL TO CENTRAL LOCATION.
   - 3.3. EXCAVATOR STATIONED ON ACCESS ROAD SCOOPS MATERIAL FROM CENTRAL LOCATION.
   - 3.4. EXCAVATOR LOAD MATERIAL INTO ROCK TRUCK.
   - 3.5. ROCK TRUCK USES EXISTING ACCESS ROADS TO HAUL MATERIALS TO STAGING AREA B.
   - 3.6. MAINTENANCE SHALL BE PERFORMED SUCH THAT IDENTIFIED SENSITIVE RESOURCES ARE AVOIDED. SENSITIVE RESOURCES ARE LOCATED ON THE EARTHEN BERM OF SG AS INDICATED ON THE PLAN SHEETS.
4. CULVERTS UNDER MONUMENT ROAD
   - 4.1. VACTOR TRUCK STATIONED ON MONUMENT ROAD FLUSHES ACCUMULATED MATERIAL IN CULVERT AND VACUUMS MATERIAL.
   - 4.2. MATERIALS TO BE HAULED TO AN APPROPRIATE DISPOSAL FACILITY.
5. PILOT CHANNEL
   - 5.1. FOLLOW SG NORTH OF DISNEY CROSSING METHODOLOGY.
   - 5.2. CONSTRUCT NEW TURNAROUND ALONG NORTH BANK AND MAINTAIN EXISTING TURNAROUNDS.
   - 5.3. PERFORM INSPECTION/MAINTENANCE OF GABION ROCK MATTRESS LOCATED NEAR CONFLUENCE OF SG AND PILOT CHANNELS.
6. STAGING AREA B
   - 6.1. ROCK TRUCK TRANSPORTS/DUMPS SPOILS TO STAGING AREA B.
   - 6.2. BULLDOZER MANAGES STOCKPILE.
   - 6.3. LOADER DUMPS MATERIAL INTO DUMP TRUCK.
   - 6.4. DUMP TRUCK HAULS MATERIAL TO STAGING AREA D.
7. STAGING AREA D
   - 7.1. DUMP TRUCK TRANSPORTS/DUMPS SPOILS TO STAGING AREA D.
   - 7.2. BULLDOZER MANAGES STOCKPILE.
   - 7.3. BACKHOE SEPERATES AND SORTS MATERIALS (WASTE TIRES,VEGETATION, TRASH) FROM STOCKPILE.
   - 7.4. LOADER DUMPS MATERIAL INTO DUMP TRUCK.
   - 7.5. DUMPTRUCK HAULS TO APPROPRIATE DISPOSAL FACILITY.
8. AS PONDED WATER IS REMOVED FROM EASTERN END OF PILOT CHANNEL, ASSESS THE AMOUNT OF ACCUMULATED SEDIMENT, TRASH AND DEBRIS PRESENT IN THE PILOT CHANNEL EAST OF THE HOLLISTER STREET BRIDGE WITHIN THE PROJECT AREA. BASED ON THE ASSESSMENT, CONDUCT CHANNEL CLEARING TO RESTORE THE APPROXIMATE 5 FEET DEEP, WITH A 23-FOOT TOP WIDTH, AND A 15-FOOT STREAMBED WIDTH OF THE PILOT CHANNEL IN THIS AREA AS NECESSARY.

9. AT THE CONCLUSION OF MAINTENANCE ACTIVITIES, RESTORE TRAIL ACCESS FROM THE AREA NORTH OF THE PILOT CHANNEL ADJACENT TO THE CONFLUENCE OF THE PILOT CHANNEL AND SMUGGLER'S GULCH CHANNEL TO THE AREA SOUTH OF THE PILOT CHANNEL, WEST OF SMUGGLER'S GULCH AS NECESSARY. REPAIR TO INCLUDE GRADING OF APPROXIMATE 8 FOOT WIDE SECTION WITHIN THE 23-FOOT TOP WIDTH OF THE PILOT CHANNEL USING NATIVE SOILS TO RE-ESTABLISH THE TRAIL CONNECTION USING A MAXIMUM 3:1 SLOPE WITH A 4:1 SLOPE PREFERRED.

POST-CONSTRUCTION

1. DEMOBILIZE EQUIPMENT.
2. REMOVE TEMPORARY CONSTRUCTION BMPS.

CONSTRUCTION STORMWATER BMP REQUIREMENTS

1. THIS CONSTRUCTION SITE IS HIGH PRIORITY.

CONTRACTOR MUST NOTIFY THE BELOW LISTED AGENCY AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION :

UNDERGROUND SERVICE ALERT (USA) 1-800-422-4133

# MAINTENANCE PLANS FOR

# TIJUANA RIVER VALLEY

# CONSTRUCTION BMP NOTES

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING DEPARTMENT
SHEET 9 OF 15 SHEETS

W.O. NO.

FOR CITY ENGINEER _____ DATE _____ SECTION HEAD

| DESCRIPTION | BY | APPROVED | DATE | FILMED |
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| AS-BUILT | | | | |

PROJECT MANAGER

DESIGN ENGINEER

140-1731
LAMBERT COORDINATES

CONTRACTOR _____ DATE STARTED _____
INSPECTOR _____ DATE COMPLETED _____

## OTHER BMP REQUIREMENTS:

1. THE MASTER LIST OF BMPs, INCLUDED AS APPENDIX B IN THE WPCP, SHOULD BE CONSULTED FOR ADDITIONAL BIOLOGICAL, CULTURAL, AND WATER QUALITY RELATED REQUIREMENTS.

2. AN ONSITE PRE-MAINTENANCE MEETING SHOULD BE CONDUCTED PRIOR TO THE START OF THE PROJECT. IN ATTENDANCE AT THE MEETING SHOULD BE THE: MAINTENANCE CONTRACTOR, CITY STORM WATER DIVISION REPRESENTATIVES, MITIGATION MONITORING COORDINATOR, QUALIFIED WATER QUALITY SPECIALIST, PROJECT BIOLOGIST/MONITOR, QUALIFIED ARCHAEOLOGIST/HISTORICAL MONITOR/PALEONTOLOGICAL MONITOR, AND ANY OTHER KEY PERSONNEL. SENSITIVE HISTORICAL AND BIOLOGICAL RESOURCES SHOULD BE IDENTIFIED TO BE AVOIDED DURING THE MAINTENANCE ACTIVITIES AS WELL AS ANY CONDITIONS FOR POSSIBLE NIGHT AND/OR WEEKEND WORK. THE WATER QUALITY SPECIALIST SHOULD IDENTIFY MITIGATION MEASURES, PROTOCOLS AND BMPs TO BE CARRIED OUT DURING THE MAINTENANCE. THE MASTER LIST OF BMPs PROVIDES DETAILED INFORMATION ON PROCEDURES TO BE FOLLOWED.

3. THE CITY SHALL NOTIFY DFG, IN WRITING, AT LEAST FIVE DAYS PRIOR TO INITIATION OF CONSTRUCTION (PROJECT) ACTIVITIES AND AT LEAST FIVE DAYS PRIOR TO COMPLETION OF CONSTRUCTION (PROJECT) ACTIVITIES, EACH TIME PROJECT ACTIVITIES OCCUR. NOTIFICATION SHALL BE SENT TO DFG'S SOUTH COAST OFFICE, ATTN: STREAMBED ALTERATION PROGRAM - SM # 1600-2011-0271-R5.

4. AVOID THE INTRODUCTION OF INVASIVE PLANT SPECIES WITH PHYSICAL EROSION CONTROL MEASURES.

5. 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.

6. 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 HAS 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. SEE THE MASTER LIST OF BMPs FOR ADDITIONAL INFORMATION.

7. A QUALIFIED BIOLOGICAL MONITOR THAT CAN RECOGNIZE CLAPPER RAILS AND THEIR VOCALIZATIONS SHALL BE PRESENT DURING ALL THE PROJECT MAINTENANCE ACTIVITY WITHIN THE CHANNELS, ENFORCE THE LIMITS OF MAINTENANCE AND ENSURE THAT NO HARM TO CLAPPER RAILS OCCURS. BEFORE EACH WORKDAY IN THE PILOT CHANNEL BEGINS, THE BIOLOGICAL MONITOR SHALL WALK UPSTREAM TO DOWNSTREAM ON EITHER SIDE OF THE CHANNEL TO EVALUATE IF CLAPPER RAILS HAVE ENTERED THE PROJECT AREA. THE BIOLOGICAL MONITOR WILL FOLLOW PROCEDURES OUTLINED IN THE MASTER LIST OF BMPs.

8. CONTRACTOR SHALL HAVE A QUALIFIED BIOLOGIST ON SITE DAILY DURING PROJECT ACTIVITY TO ENSURE THAT AGREEMENT CONDITIONS ARE BEING MET AND MINIMIZE IMPACTS TO HABITAT. THE BIOLOGIST WILL BE KNOWLEDGEABLE OF VIREO BIOLOGY AND ECOLOGY. THE BIOLOGIST SHALL BE AUTHORIZED TO STOP CONSTRUCTION IF NECESSARY TO PROTECT FISH AND WILDLIFE RESOURCES. IF ANY PROTECTED SPECIES ARE FOUND THE BIOLOGIST SHALL INFORM DFG. IF THERE IS A THREAT OF HARM TO ANY PROTECTED SPECIES OR OTHER AQUATIC WILDLIFE THE BIOLOGIST SHALL HALT CONSTRUCTION AND NOTIFY DFG. CONSULTATION WITH DFG IS REQUIRED BEFORE RE-COMMENCING WORK. THE QUALIFIED BIOLOGIST WILL FOLLOW PROCEDURES OUTLINED IN THE MASTER LIST OF BMPs.

9. IF ANY WILDLIFE IS ENCOUNTERED DURING THE COURSE OF CONSTRUCTION, SAID WILDLIFE SHALL BE ALLOWED TO LEAVE THE CONSTRUCTION AREA UNHARMED.

10. PRIOR TO THE START OF MAINTENANCE ACTIVITIES, ALL HISTORICAL RESOURCES AREAS SHALL BE FLAGGED, CAPPED OR FENCED.

11. AREAS IDENTIFIED AS MODERATE TO HIGH POTENTIAL FOR THE OCCURRENCE OF SIGNIFICANT HISTORICAL RESOURCES SHALL BE IDENTIFIED FOLLOWING THE PROCEDURES OUTLINES IN THE MASTER LIST OF BMPs. AN ARCHAEOLOGICAL MONITOR SHALL BE PRESENT ONSITE FULL TIME DURING CONSTRUCTION ACTIVITIES IN AREAS IDENTIFIED AS ARCHEOLOGICAL RESOURCES.

12. IF HUMAN REMAINS ARE DISCOVERED, WORK SHALL HALT IN THAT AREA AND NO SOIL SHALL BE EXPORTED OFF-SITE UNTIL A DETERMINATION CAN BE MADE. THE PROCEDURES OUTLINED IN THE MASTER LIST OF BMPs SHALL BE FOLLOWED.

13. 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 MASTER LIST OF BMPs PROVIDES DETAILED INFORMATION ON PROCEDURES TO BE FOLLOWED.

14. 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.

# MAINTENANCE PLANS FOR

# TIJUANA RIVER VALLEY

# CONSTRUCTION BMP NOTES

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING DEPARTMENT
SHEET 10 OF 15 SHEETS

W.O. NO.

CONTRACTOR MUST NOTIFY THE BELOW LISTED AGENCY AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION :

UNDERGROUND SERVICE ALERT (USA) 1-800-422-4133

FOR CITY ENGINEER — DATE — SECTION HEAD

| DESCRIPTION | BY | APPROVED | DATE | FILMED |
|---|---|---|---|---|
| FILE NAME: DATE: | | | | |
| | | | | |
| | | | | |
| AS-BUILT | | | | |

PROJECT MANAGER

DESIGN ENGINEER

140-1731
LAMBERT COORDINATES

CONTRACTOR _____ DATE STARTED _____
INSPECTOR _____ DATE COMPLETED _____

# ENVIRONMENTAL MITIGATION REQUIREMENTS:

## CHAPTER 11.0 MITIGATION MONITORING AND REPORTING PROGRAM

Section 21081.6 of the State of California Public Resources Code requires a Lead or Responsible Agency that approves or carries out a project where an environmental impact report (EIR) has identified significant environmental effects to adopt a "reporting or monitoring program for adopted or required changes to mitigate or avoid significant environmental effects." The City of San Diego is the lead Agency for the Master Program PEIR, and, therefore, is responsible for implementation of the MMRP. Because the PEIR recommends measures to mitigate these impacts, an MMRP is required to ensure that adopted mitigation measures are implemented.

As Lead Agency for the proposed project under CEQA, the City of San Diego will administer the MMRP for the following environmental issue areas: biological resources, historical resources, land use policies, paleontological resources, and water quality.

### GENERAL

***General Mitigation 1:*** Prior to commencement of work, the 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.

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





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 habitat acquisition and preservation shall include the following:

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

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

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

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





**Table 4.3-11**
**UPLAND HABITAT MITIGATION RATIOS[1]**

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

[1]Assumes mitigation occurs within an MHPA

***Mitigation Measure 4.3.12***: Loss of habitat for the coastal California gnatcatcher shall be mitigated through the acquisition of suitable habitat or mitigation credits at a ratio of 1:1. Mitigation shall take place within the MHPA, and shall be accomplished within six months of the date maintenance is completed.

***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.

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

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





**BIOLOGICAL RESOURCES**

Potential impacts to biological resources would be reduced to below a level of significance through implementation of the following mitigation measures as well as Mitigation Measures 4.1-1 through 4.1-25.

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

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

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

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

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

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





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

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

***Mitigation Measure 4.3.8***: Within six months of the end of an annual storm water facility maintenance program, the monitoring biologist shall complete an annual report which shall be distributed to the following agencies: the City of San Diego DSD, CDFG, RWQCB, USFWS, and Corps. At a minimum, the report shall contain the following information:

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

***Mitigation Measure 4.3.9:*** Wetland impacts resulting from maintenance shall be mitigated in one of the following ~~three~~ two ways: (1) habitat creation, restoration, and/or enhancement ~~concurrent with maintenance~~, ~~(2) habitat creation, restoration, and/or enhancement prior to maintenance,~~ or (~~3~~2) mitigation credits. The amount of mitigation ~~When mitigation is proposed to be accomplished through concurrent creation, restoration or enhancement, the amount of planting~~ 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. ~~When previously created, restored or enhanced wetland habitat is proposed to be used for mitigation, the ratio shall be 1:1, provided the habitat has been determined to be successfully established by the ADD Environmental Designee in consultation with the Resource Agencies prior to commencing the maintenance activity. Mitigation credits may be used at a ratio of 1:1, provided the mitigation credits are from a mitigation bank which has been approved by the Resource Agencies.~~ No maintenance shall commence until the ADD Environmental Designee has





determined that mitigation proposed for a specific maintenance activity meets one of these ~~three~~ two options.

**Table 4.3-10**
**WETLAND MITIGATION RATIOS**

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

[1] Mitigation ratio within the Coastal Zone will be 3:1
[2] Mitigation ratio within the Coastal Zone will be 4:1~~Mitigation done in advance or through purchase of mitigation credits would be at a 1:1 ratio.~~

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.



MAINTENANCE PLANS FOR

TIJUANA RIVER VALLEY ENVIRONMENTAL MITIGATION REQUIREMENTS

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING DEPARTMENT
SHEET 11 OF 15 SHEETS

W.O. NO. _____

CONTRACTOR MUST NOTIFY THE BELOW LISTED AGENCY AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION :

UNDERGROUND SERVICE ALERT (USA) 1-800-422-4133

FOR CITY ENGINEER _____ DATE _____

| DESCRIPTION | BY | APPROVED | DATE | FILMED |
|---|---|---|---|---|
| FILE NAME: DATE: | | | | |
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| AS-BUILT | | | | |

CONTRACTOR _____ DATE STARTED _____
INSPECTOR _____ DATE COMPLETED _____

SECTION HEAD _____
PROJECT MANAGER _____
DESIGN ENGINEER _____
140-1731
LAMBERT COORDINATES

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***Mitigation Measure 4.3.17:*** If evidence indicates the potential is high for a listed species to be present, based on historical records or site conditions, then clearing, grubbing, or grading (inside and outside the MHPA) shall be restricted during the breeding season where development may impact the following species:

- Light-footed clapper rail (between February 15 and August 15);
- Western snowy plover (between March 1 and September 15);
- Least tern (between April 1 and September 15);
- Cactus wren (between February 15 and August 15); or
- Tricolored black bird (between March 1 and August 1.

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 shall be implemented.

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

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

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

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

***Mitigation Measure 4.3.22***: If removal of any eucalyptus trees or other trees used by raptors for nesting within a maintenance area is proposed during the raptor breeding season (January 15 through August 31), a qualified biologist shall ensure that no raptors are nesting in such trees. If





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

***Mitigation Measure 4.3.23***: If maintenance activities would occur at known localities for listed fish species or within suitable habitat for other highly sensitive aquatic species (i.e., southwestern pond turtle), avoidance or minimization measures (i.e., exclusionary fencing, dewatering of the activity area, live-trapping, and translocation to suitable habitat) must be implemented.

***Mitigation Measure 4.3.24***: 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 4.3.25***: 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.

**HISTORICAL RESOURCES**

Potential impacts to historical resources would be reduced to below a level of significance through implementation of the following mitigation measures.

***Mitigation Measure 4.4.1***: Prior to commencement of the first occurrence of maintenance activity within a drainage facility included in the Master Program, an archaeologist, meeting the qualifications specified by the City's HRG, shall determine the potential for significant historical resources to occur in the maintenance area. If the archaeologist determines that the potential is moderate to high, an IHA shall be prepared. Based on the IMP for the proposed maintenance activity, the archaeologist shall determine the APE, which shall include access, staging, and maintenance areas. The IHA shall include a field survey of the APE with a Native American monitor, using the standards of the City's HRG. In addition, the archaeologist shall request a record search from the SCIC. Based on the results of the field survey and record search, the archaeologist shall conduct an archaeological testing program for any identified historical resources, using the standards of the City's HRG. If significant historical resources are identified, they shall be taken to the Historical Resources Board for designation as Historic Sites. Avoidance or implementation of an Archaeological Data Recovery Program (ADRP) and Archaeological Monitoring Program shall be required to mitigate project impacts to significant historical resources. The archaeologist shall prepare a report in accordance with City guidelines. At a minimum, the IHA report shall include:

- Description of maintenance to be performed, including length, width, and depth;





- Prehistory and History Background Discussion;
- Results of Record Search;
- Survey Methods;
- Archaeological Testing Methods;
- Impact Analysis; and
- Mitigation Recommendations, including avoidance or implementation of an ADRP and archaeological monitoring program.

In the event that the IHA indicates that no significant historical resources occur within the APE, or have the potential to occur within the APE, no further action shall be required.

***Mitigation Measure 4.4.2***: Prior to initiating any maintenance activity where the IHA identifies existing significant historical resources within the APE, the following actions shall be taken.

***4.4.2.1*** The Storm Water Department shall select a Principal Investigator (PI), who shall be approved by the ADD Environmental Designee. The PI must meet the requirements of the City's HRG.

***4.4.2.2*** Mitigation recommendations from the IHA shall be incorporated into the IMP to the satisfaction of the PI and the ADD Environmental Designee. Typical mitigation measures shall include but not be limited to: delineating resource boundaries on maintenance plans; implementing protective measures such as fencing, signage or capping; and selective monitoring during maintenance activities.

***4.4.2.3*** If impacts to significant historical resources cannot be avoided, the PI shall prepare an Archaeological Research Design and Data Recovery Program (ARDDRP) for the affected resources, with input from a Native American consultant, and the ARDDRP shall be approved by the ADD Environmental Designee. Based on the approved research design, a phased excavation program shall be conducted, which will include the participation of a Native American. The sample size to be excavated shall be determined by the PI, in consultation with City staff. The sample size shall vary with the nature and size of the archaeological site, but need not exceed 15 percent of the overall resource area. The area involved in the ARDDRP shall be surveyed, staked and flagged by the archaeological monitor, prior to commencing maintenance activities which could affect the identified resources.

***4.4.2.4*** A pre-maintenance meeting shall be held on-site prior to commencing any maintenance that may impact a significant historical resource. The meeting shall include representatives from the PI, the Native American consultant, Storm Water Department, Mitigation Monitoring Coordinator (MMC), Resident Engineer (RE), and Maintenance





Contractor (MC). The PI shall explain mitigation measures which must be implemented during maintenance. The PI shall also confirm that all protective measures (e.g. fencing, signage or capping) are in place.

***4.4.2.5*** If human remains are discovered in the course of conducting the ARDDRP, work shall be halted in that area and the following procedures set forth in the California Public Resources Code (Sec. 5097.98) and State Health and Safety Code (Sec. 7050.5) will be taken:

- The PI shall notify the RE, and the MMC. The MMC will notify the appropriate Senior Planner in the Environmental Analysis Section (EAS).
- The PI shall notify the Medical Examiner, after consultation with the RE, either in person or via telephone.
- Work will be redirected away from the location of the discovery and any nearby area reasonably suspected to overlay adjacent human remains until a determination can be made by the Medical Examiner, in consultation with the PI, concerning the provenience of the remains.
- The Medical Examiner, in consultation with the PI, shall determine the need for a field examination to determine the provenience.
- If a field examination is not warranted, the Medical Examiner shall determine, with input from the PI, if the remains are or are most likely to be of Native American origin.
- If Human Remains are determined to be Native American, the Medical Examiner shall notify the Native American Heritage Commission (NAHC). The NAHC shall contact the PI within 24 hours after the Medical Examiner has completed coordination. The NAHC will identify the person or persons determined to be the Most Likely Descendent (MLD) and provide contact information. The PI will coordinate with the MLD for additional coordination. If (1) the NAHC is unable to identify the MLD, or the MLD fails to make a recommendation within 24 hours after being notified by the Commission; or (2) the landowner or authorized representative rejects the recommendation of the MLD and mediation in accordance with PRC 5097.94 (k) by the NAHC fails to provide measures acceptable to the landowner, then the landowner or their authorized representative shall re-inter the human remains and all associated grave goods with appropriate dignity, on the property in a location not subject to subsurface disturbance. Information on this process will be provided to the NAHC.
- If Human Remains are not Native American, the PI shall contact the Medical Examiner and notify them of the historic era context of the burial. The Medical Examiner shall determine the appropriate course of action with the PI and City staff (PRC 5097.98). If the remains are of historic origin, they shall be appropriately removed and conveyed to the Museum of Man for analysis. The decision for reinterment of the human remains shall be made in consultation with MMC, EAS, the landowner, and the Museum.





***4.4.2.6*** The PI shall be responsible for ensuring: (1) that all cultural materials collected are cleaned, catalogued and permanently curated with an appropriate institution; (2) that a letter of acceptance from the curation institution has been submitted to MMC; (3) that all artifacts are analyzed to identify function and chronology as they relate to the history of the area; (4) that faunal material is identified as to species; and (5) that specialty studies are completed, as appropriate. Curation of artifacts associated with the survey, testing and/or data recovery for this project shall be completed in consultation with LDR and the Native American representative, as applicable.

***4.4.2.7*** The Archaeologist shall be responsible for updating the appropriate State of California Department of Park and Recreation forms-DPR 523 A/B associated with the ARDDRP in accordance with the City's Historical Resources Guidelines, and submittal of such forms to the SCIC with the Final Results Report.

***4.4.2.8*** The PI shall prepare a Draft Results Report (even if negative) that describes the results, analysis and conclusions of the ARDDRP (with appropriate graphics). The MMC shall return the Draft Results Report to the PI for revision or for preparation of the Final Report. The PI shall submit the revised Draft Results Report to MMC for approval. The MMC shall provide written verification to the PI of the approved report. The MMC shall notify the RE of receipt of all Draft Result Report submittals and approvals. The MMC shall notify the RE of receipt of the Final Results Report.

***Mitigation Measure 4.4.3:*** Prior to initiating any maintenance activity where the IHA identifies a moderate to high potential for the occurrence of significant historical resources within the APE, the following actions shall be taken:

***4.4.3.1 Prior to Permit Issuance or Bid Opening/Bid Award***

A. Entitlements Plan Check
   1. Prior to permit issuance or Bid Opening/Bid Award, whichever is applicable, the Assistant Deputy Director (ADD) Environmental designee shall verify that the requirements for Archaeological Monitoring and Native American monitoring have been noted on the applicable maintenance documents through the plan check process.

B. Letters of Qualification have been submitted to ADD
   1. Prior to Bid Award, the applicant shall submit a letter of verification to Mitigation Monitoring Coordination (MMC) identifying the Principal Investigator (PI) for the project and the names of all persons involved in the archaeological monitoring program, as defined in the City of San Diego Historical Resources Guidelines (HRG). If applicable, individuals involved in the archaeological monitoring program must have completed the 40-hour HAZWOPER training with certification documentation.
   2. MMC will provide a letter to the applicant confirming the qualifications of the PI and all persons involved in the archaeological monitoring of the project meet the qualifications established in the HRG.





   3. Prior to the start of work, the applicant must obtain written approval from MMC for any personnel changes associated with the monitoring program.

***4.4.3.2 Prior to Start of Maintenance***

A. Verification of Records Search
   1. The PI shall provide verification to MMC that a site specific records search (1/4 mile radius) has been completed. Verification includes, but is not limited to a copy of a confirmation letter from South Coastal Information Center, or, if the search was in-house, a letter of verification from the PI stating that the search was completed.
   2. The letter shall introduce any pertinent information concerning expectations and probabilities of discovery during trenching and/or grading activities.
   3. The PI may submit a detailed letter to MMC requesting a reduction to the ¼ mile radius.

B. PI Shall Attend Pre-maintenance Meetings
   1. Prior to beginning any work that requires monitoring; the Applicant shall arrange a Pre-maintenance Meeting that shall include the PI, Native American consultant/monitor (where Native American resources may be impacted), Maintenance Manager (MM) and/or Grading Contractor, Resident Engineer (RE), Building Inspector (BI), if appropriate, and MMC. The qualified Archaeologist and Native American Monitor shall attend any grading/excavation related Pre-maintenance Meetings to make comments and/or suggestions concerning the Archaeological Monitoring program with the Maintenance Manager and/or Grading Contractor.
      a. If the PI is unable to attend the Pre-maintenance Meeting, the Applicant shall schedule a focused Pre-maintenance Meeting with MMC, the PI, RE, MM or BI, if appropriate, prior to the start of any work that requires monitoring.
   2. Acknowledgement of Responsibility for Curation (CIP or Other Public Projects)
      The applicant shall submit a letter to MMC acknowledging their responsibility for the cost of curation associated with all phases of the archaeological monitoring program.
   3. Identify Areas to be Monitored
      Prior to the start of any work that requires monitoring, the PI shall submit an Archaeological Monitoring Exhibit (AME) (with verification that the AME has been reviewed and approved by the Native American consultant/monitor when Native American resources may be impacted) based on the appropriate maintenance documents (reduced to 11x17) to MMC identifying the areas to be monitored including the delineation of grading/excavation limits.
      The AME shall be based on the results of a site specific records search as well as information regarding the age of existing pipelines, laterals and associated appurtenances and/or any known soil conditions (native or formation).
      MMC shall notify the PI that the AME has been approved.





   4. When Monitoring Will Occur
      a. Prior to the start of any work, the PI shall also submit a maintenance schedule to MMC through the RE indicating when and where monitoring will occur.
      b. The PI may submit a detailed letter to MMC prior to the start of work or during maintenance requesting a modification to the monitoring program. This request shall be based on relevant information such as review of final maintenance documents which indicate conditions such as age of existing pipe to be replaced, depth of excavation and/or site graded to bedrock, etc., which may reduce or increase the potential for resources to be present.
   5. Approval of AME and Maintenance Schedule
      After approval of the AME by MMC, the PI shall submit to MMC written authorization of the AME and Maintenance Schedule from the MM.

***4.4.3.3 During Maintenance***

A. Monitor Shall be Present During Grading/Excavation/Trenching
   1. The Archaeological Monitor shall be present full-time during all soil disturbing and grading/excavation/trenching activities which could result in impacts to archaeological resources as identified on the AME. **The Maintenance Manager is responsible for notifying the RE, PI, and MMC of changes to any maintenance activities such as in the case of a potential safety concern within the area being monitored. In certain circumstances OSHA safety requirements may necessitate modification of the AME.**
   2. The Native American consultant/monitor shall determine the extent of their presence during soil disturbing and grading/excavation/trenching activities based on the AME and provide that information to the PI and MMC. If prehistoric resources are encountered during the Native American consultant/monitor's absence, work shall stop and the Discovery Notification Process detailed in Sections 4.4.3.3.B-C and 4.4.3.4-A-D shall commence.
   3. The PI may submit a detailed letter to MMC during maintenance requesting a modification to the monitoring program when a field condition such as modern disturbance post-dating the previous grading/trenching activities, presence of fossil formations, or when native soils are encountered that may reduce or increase the potential for resources to be present.
   4. The archaeological and Native American consultant/monitor shall document field activity via the Consultant Site Visit Record (CSVR). The CSVR's shall be faxed by the MM to the RE the first day of monitoring, the last day of monitoring, monthly (**Notification of Monitoring Completion**), and in the case of ANY discoveries. The RE shall forward copies to MMC.



MAINTENANCE PLANS FOR

TIJUANA RIVER VALLEY ENVIRONMENTAL MITIGATION REQUIREMENTS

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING DEPARTMENT
SHEET 12 OF 15 SHEETS

W.O. NO. _____

CONTRACTOR MUST NOTIFY THE BELOW LISTED AGENCY AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION :

UNDERGROUND SERVICE ALERT (USA) 1-800-422-4133

FOR CITY ENGINEER _____ DATE _____

| DESCRIPTION | BY | APPROVED | DATE | FILMED |
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CONTRACTOR _____ DATE STARTED _____
INSPECTOR _____ DATE COMPLETED _____

SECTION HEAD _____
PROJECT MANAGER _____
DESIGN ENGINEER _____
140-1731
LAMBERT COORDINATES

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B. Discovery Notification Process
1. In the event of a discovery, the Archaeological Monitor shall direct the contractor to temporarily divert all soil disturbing activities, including but not limited to digging, trenching, excavating or grading activities in the area of discovery and in the area reasonably suspected to overlay adjacent resources and immediately notify the RE or BI, as appropriate.
2. The Monitor shall immediately notify the PI (unless Monitor is the PI) of the discovery.
3. The PI shall immediately notify MMC by phone of the discovery, and shall also submit written documentation to MMC within 24 hours by fax or email with photos of the resource in context, if possible.
4. No soil shall be exported off-site until a determination can be made regarding the significance of the resource specifically if Native American resources are encountered.

C. Determination of Significance
1. The PI and Native American consultant/monitor, where Native American resources are discovered shall evaluate the significance of the resource. If Human Remains are involved, follow protocol in Section 4.4.3.4 below.
   a. The PI shall immediately notify MMC by phone to discuss significance determination and shall also submit a letter to MMC indicating whether additional mitigation is required.
   b. If the resource is significant, the PI shall submit an Archaeological Data Recovery Program (ADRP) and obtain written approval of the program from MMC, MM and RE. ADRP and any mitigation must be approved by MMC, RE and/or MM before ground disturbing activities in the area of discovery will be allowed to resume. **Note: If a unique archaeological site is also an historical resource as defined in CEQA Section 15064.5, then the limits on the amount(s) that a project applicant may be required to pay to cover mitigation costs as indicated in CEQA Section 21083.2 shall not apply.**
      (1). Note: For pipeline trenching and other linear projects in the public Right-of-Way, the PI shall implement the Discovery Process for Pipeline Trenching projects identified below under "D."
   c. If the resource is not significant, the PI shall submit a letter to MMC indicating that artifacts will be collected, curated, and documented in the Final Monitoring Report. The letter shall also indicate that no further work is required.
      (1). Note: For Pipeline Trenching and other linear projects in the public Right-of-Way, if the deposit is limited in size, both in length and depth; the information value is limited and is not associated with any other resource; and there are no unique features/artifacts associated with the deposit, the discovery should be considered not significant.
      (2). Note, for Pipeline Trenching and other linear projects in the public Right-of-Way, if significance cannot be determined, the Final Monitoring Report and Site Record (DPR Form 523A/B) shall identify the discovery as Potentially Significant.





D. Discovery Process for Significant Resources - Pipeline Trenching and other Linear Projects in the Public Right-of-Way
The following procedure constitutes adequate mitigation of a significant discovery encountered during pipeline trenching activities or for other linear project types within the Public Right-of-Way including but not limited to excavation for jacking pits, receiving pits, laterals, and manholes to reduce impacts to below a level of significance:
1. Procedures for documentation, curation and reporting
   a. One hundred percent of the artifacts within the trench alignment and width shall be documented in-situ, to include photographic records, plan view of the trench and profiles of side walls, recovered, photographed after cleaning and analyzed and curated. The remainder of the deposit within the limits of excavation (trench walls) shall be left intact.
   b. The PI shall prepare a Draft Monitoring Report and submit to MMC via the RE as indicated in Section 4.4.3.6-A.
   c. The PI shall be responsible for recording (on the appropriate State of California Department of Park and Recreation forms-DPR 523 A/B) the resource(s) encountered during the Archaeological Monitoring Program in accordance with the City's Historical Resources Guidelines. The DPR forms shall be submitted to the South Coastal Information Center for either a Primary Record or SDI Number and included in the Final Monitoring Report.
   d. The Final Monitoring Report shall include a recommendation for monitoring of any future work in the vicinity of the resource.

***4.4.3.4 Discovery of Human Remains***

*If human remains are discovered, work shall halt in that area and no soil shall be exported off-site until a determination* can be made regarding the provenance of the human remains; and the following procedures as set forth in CEQA Section 15064.5(e), the California Public Resources Code (Sec. 5097.98) and State Health and Safety Code (Sec. 7050.5) shall be undertaken:

A. Notification
1. Archaeological Monitor shall notify the RE or BI as appropriate, MMC, and the PI, if the Monitor is not qualified as a PI. MMC will notify the appropriate Senior Planner in the Environmental Analysis Section (EAS) of the Development Services Department to assist with the discovery notification process.
2. The PI shall notify the Medical Examiner after consultation with the RE, either in person or via telephone.

B. Isolate discovery site
1. Work shall be directed away from the location of the discovery and any nearby area reasonably suspected to overlay adjacent human remains until a determination can be made by the Medical Examiner in consultation with the PI concerning the provenience of the remains.
2. The Medical Examiner, in consultation with the PI, will determine the need for a field examination to determine the provenience.





3. If a field examination is not warranted, the Medical Examiner will determine with input from the PI, if the remains are or are most likely to be of Native American origin.

C. If Human Remains **ARE** determined to be Native American
1. The Medical Examiner will notify the Native American Heritage Commission (NAHC) within 24 hours. By law, **ONLY** the Medical Examiner can make this call.
2. NAHC will immediately identify the person or persons determined to be the Most Likely Descendent (MLD) and provide contact information.
3. The MLD will contact the PI within 24 hours or sooner after the Medical Examiner has completed coordination, to begin the consultation process in accordance with CEQA Section 15064.5(e), the California Public Resources and Health & Safety Codes.
4. The MLD will have 48 hours to make recommendations to the property owner or representative, for the treatment or disposition with proper dignity, of the human remains and associated grave goods.
5. Disposition of Native American Human Remains will be determined between the MLD and the PI, and, if:
   a. The NAHC is unable to identify the MLD, OR the MLD failed to make a recommendation within 48 hours after being notified by the Commission, OR;
   b. The landowner or authorized representative rejects the recommendation of the MLD and mediation in accordance with PRC 5097.94 (k) by the NAHC fails to provide measures acceptable to the landowner, THEN
   c. To protect these sites, the landowner shall do one or more of the following:
      (1) Record the site with the NAHC;
      (2) Record an open space or conservation easement; or
      (3) Record a document with the County.
   d. Upon the discovery of multiple Native American human remains during a ground disturbing land development activity, the landowner may agree that additional conferral with descendants is necessary to consider culturally appropriate treatment of multiple Native American human remains. Culturally appropriate treatment of such a discovery may be ascertained from review of the site utilizing cultural and archaeological standards. Where the parties are unable to agree on the appropriate treatment measures the human remains and buried with Native American human remains shall be reinterred with appropriate dignity, pursuant to Section 4.4.3.5.c., above.

D. If Human Remains are **NOT** Native American
1. The PI shall contact the Medical Examiner and notify them of the historic era context of the burial.
2. The Medical Examiner will determine the appropriate course of action with the PI and City staff (PRC 5097.98).
3. If the remains are of historic origin, they shall be appropriately removed and conveyed to the San Diego Museum of Man for analysis. The decision for interment of the human remains shall be made in consultation with MMC, EAS, the applicant/landowner, any known descendant group, and the San Diego Museum of Man.





***4.4.3.5 Night and/or Weekend Work***

A. If night and/or weekend work is included in the contract
1. When night and/or weekend work is included in the contract package, the extent and timing shall be presented and discussed at the Pre-maintenance meeting.
2. The following procedures shall be followed.
   a. No Discoveries
      In the event that no discoveries were encountered during night and/or weekend work, the PI shall record the information on the CSVR and submit to MMC via fax by 8AM of the next business day.
   b. Discoveries
      All discoveries shall be processed and documented using the existing procedures detailed in Sections 4.4.3.3 - During Maintenance, and 4.4.3.4 – Discovery of Human Remains. Discovery of human remains shall always be treated as a significant discovery.
   c. Potentially Significant Discoveries
      If the PI determines that a potentially significant discovery has been made, the procedures detailed under Sections 4.4.3.3 During Maintenance and 4.4.3.4- Discovery of Human Remains shall be followed.
   d. The PI shall immediately contact the RE and MMC, or by 8AM of the next business day to report and discuss the findings as indicated in Section 4.4.3.3-B, unless other specific arrangements have been made.

B. If night and/or weekend work becomes necessary during the course of maintenance
1. The Maintenance Manager shall notify the RE, or BI, as appropriate, a minimum of 24 hours before the work is to begin.
2. The RE, or BI, as appropriate, shall notify MMC immediately.

C. All other procedures described above shall apply, as appropriate.

***4.4.3.6 Post Maintenance***

A. Submittal of Draft Monitoring Report
1. The PI shall submit two copies of the Draft Monitoring Report (even if negative), prepared in accordance with the Historical Resources Guidelines (Appendix C/D) which describes the results, analysis, and conclusions of all phases of the Archaeological Monitoring Program (with appropriate graphics) to MMC via the RE for review and approval within 90 days following the completion of monitoring. **It should be noted that if the PI is unable to submit the Draft Monitoring Report within the allotted 90-day timeframe as a result of delays with analysis, special study results or other complex issues, a schedule shall be submitted to MMC establishing agreed due dates and the provision for submittal of monthly status reports until this measure can be met.**





   a. For significant archaeological resources encountered during monitoring, the Archaeological Data Recovery Program or Pipeline Trenching Discovery Process shall be included in the Draft Monitoring Report.
   b. Recording Sites with State of California Department of Parks and Recreation The PI shall be responsible for recording (on the appropriate State of California Department of Park and Recreation forms-DPR 523 A/B) any significant or potentially significant resources encountered during the Archaeological Monitoring Program in accordance with the City's Historical Resources Guidelines, and submittal of such forms to the South Coastal Information Center with the Final Monitoring Report.
2. MMC shall return the Draft Monitoring Report to the PI via the RE for revision or, for preparation of the Final Report.
3. The PI shall submit revised Draft Monitoring Report to MMC via the RE for approval.
4. MMC shall provide written verification to the PI of the approved report.
5. MMC shall notify the RE or BI, as appropriate, of receipt of all Draft Monitoring Report submittals and approvals.

B. Handling of Artifacts
1. The PI shall be responsible for ensuring that all cultural remains collected are cleaned and catalogued.
2. The PI shall be responsible for ensuring that all artifacts are analyzed to identify function and chronology as they relate to the history of the area; that faunal material is identified as to species; and that specialty studies are completed, as appropriate.

C. Curation of artifacts: Accession Agreement and Acceptance Verification
1. The PI shall be responsible for ensuring that all artifacts associated with the survey, testing and/or data recovery for this project are permanently curated with an appropriate institution. This shall be completed in consultation with MMC and the Native American representative, as applicable.
2. When applicable to the situation, the PI shall include written verification from the Native American consultant/monitor indicating that Native American resources were treated in accordance with state law and/or applicable agreements. If the resources were reinterred, verification shall be provided to show what protective measures were taken to ensure no further disturbance occurs in accordance with Section 4.4.3.4 – Discovery of Human Remains, Subsection C.
3. The PI shall submit the Accession Agreement and catalogue record(s) to the RE or BI, as appropriate for donor signature with a copy submitted to MMC.
4. The RE or BI, as appropriate shall obtain signature on the Accession Agreement and shall return to PI with copy submitted to MMC.
5. The PI shall include the Acceptance Verification from the curation institution in the Final Monitoring Report submitted to the RE or BI and MMC.





D. Final Monitoring Report(s)
1. The PI shall submit one copy of the approved Final Monitoring Report to the RE or BI as appropriate, and one copy to MMC (even if negative), within 90 days after notification from MMC of the approved report.
2. The RE shall, in no case, issue the Notice of Completion until receiving a copy of the approved Final Monitoring Report from MMC which includes the Acceptance Verification from the curation institution.

**LAND USE**

Potential impacts to land use policies in the City's General Plan would be reduced to below a level of significance through implementation of the following mitigation measures.

***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 or 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 activities 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 60 dB(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



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TIJUANA RIVER VALLEY ENVIRONMENTAL MITIGATION REQUIREMENTS

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING DEPARTMENT
SHEET 13 OF 15 SHEETS

W.O. NO. _____

CONTRACTOR MUST NOTIFY THE BELOW LISTED AGENCY AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION :

UNDERGROUND SERVICE ALERT (USA) 1-800-422-4133

FOR CITY ENGINEER _____ DATE _____

| DESCRIPTION | BY | APPROVED | DATE | FILMED |
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CONTRACTOR _____ DATE STARTED _____
INSPECTOR _____ DATE COMPLETED _____

SECTION HEAD _____
PROJECT MANAGER _____
DESIGN ENGINEER _____
140-1731
LAMBERT COORDINATES

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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.





**PALEONTOLOGICAL RESOURCES**

Potential impacts to paleontological resources would be reduced to below a level of significance through implementation of the following mitigation measures.

***Mitigation Measure* 4.7.1**: Prior to initiating any maintenance activity where significant paleontological resources may occur within the APE, the following actions shall be taken.

***4.7.1.1 Prior to Permit Issuance or Bid Opening/Bid Award***

A. Entitlements Plan Check
   1. Prior to permit issuance or Bid Opening/Bid Award, whichever is applicable, the Assistant Deputy Director (ADD) Environmental designee shall verify that the requirements for Paleontological Monitoring have been noted on the appropriate maintenance documents.

B. Letters of Qualification have been submitted to ADD
   1. Prior to Bid Award, the applicant shall submit a letter of verification to Mitigation Monitoring Coordination (MMC) identifying the Principal Investigator (PI) for the project and the names of all persons involved in the paleontological monitoring program, as defined in the City of San Diego Paleontology Guidelines.
   2. MMC will provide a letter to the applicant confirming the qualifications of the PI and all persons involved in the paleontological monitoring of the project.
   3. Prior to the start of work, the applicant shall obtain approval from MMC for any personnel changes associated with the monitoring program.

***4.7.1.2 Prior to Start of Maintenance***

A. Verification of Records Search
   1. The PI shall provide verification to MMC that a site specific records search has been completed. Verification includes, but is not limited to a copy of a confirmation letter from San Diego Natural History Museum, other institution or, if the search was in-house, a letter of verification from the PI stating that the search was completed.
   2. The letter shall introduce any pertinent information concerning expectations and probabilities of discovery during trenching and/or grading activities.

B. PI Shall Attend Pre-maintenance Meetings
   1. Prior to beginning any work that requires monitoring, the Applicant shall arrange a Pre-maintenance Meeting that shall include the PI, Maintenance Manager (MM) and/or Grading Contractor, Resident Engineer (RE), Building Inspector (BI), if appropriate, and MMC. The qualified paleontologist shall attend any grading/excavation related Pre-maintenance Meetings to make comments and/or





suggestions concerning the Paleontological Monitoring program with the Maintenance Manager and/or Grading Contractor.
   a. If the PI is unable to attend the Pre-maintenance Meeting, the Applicant shall schedule a focused Pre-maintenance Meeting with MMC, the PI, RE, MM or BI, if appropriate, prior to the start of any work that requires monitoring.
2. Acknowledgement of Responsibility for Curation (CIP or Other Public Projects)
   The applicant shall submit a letter to MMC acknowledging their responsibility for the cost of curation associated with all phases of the paleontological monitoring program.
3. Identify Areas to be Monitored
   a. Prior to the start of any work that requires monitoring, the PI shall submit a Paleontological Monitoring Exhibit (PME) based on the appropriate maintenance documents (reduced to 11x17) to MMC for approval identifying the areas to be monitored including the delineation of grading/excavation limits. Monitoring shall begin at depths below 10 feet from existing grade or as determined by the PI in consultation with MMC. The determination shall be based on site specific records search data which supports monitoring at depths less than ten feet.
   b. The PME shall be based on the results of a site specific records search as well as information regarding existing known soil conditions (native or formation).
   c. MMC shall notify the PI that the PME has been approved.
4. When Monitoring Will Occur
   a. Prior to the start of any work, the PI shall also submit a maintenance schedule to MMC through the RE indicating when and where monitoring will occur.
   b. The PI may submit a detailed letter to MMC prior to the start of work or during maintenance requesting a modification to the monitoring program. This request shall be based on relevant information such as review of final maintenance documents which indicate conditions such as depth of excavation and/or site graded to bedrock, presence or absence of fossil resources, etc., which may reduce or increase the potential for resources to be present.
5. Approval of PME and Maintenance Schedule
   After approval of the PME by MMC, the PI shall submit to MMC written authorization of the PME and Maintenance Schedule from the MM.

***4.7.1.3 During Maintenance***

A. Monitor Shall be Present During Grading/Excavation/Trenching
   1. The monitor shall be present full-time during grading/excavation/trenching activities including, but not limited to mainline, laterals, jacking and receiving pits, services and all other appurtenances associated with underground utilities as identified on the PME that could result in impacts to formations with high and/or moderate resource sensitivity. **The Maintenance Manager is responsible for notifying the RE, PI, and MMC of changes to any maintenance activities such as in the case of a potential safety concern within the area being monitored. In certain circumstances OSHA safety requirements may necessitate modification of the PME.**





2. The PI may submit a detailed letter to MMC during maintenance requesting a modification to the monitoring program when a field condition such as trenching activities that do not encounter formational soils as previously assumed, and/or when unique/unusual fossils are encountered, which may reduce or increase the potential for resources to be present.
3. The monitor shall document field activity via the Consultant Site Visit Record (CSVR). The CSVR's shall be faxed by the MM to the RE the first day of monitoring, the last day of monitoring, monthly (**Notification of Monitoring Completion)**, and in the case of ANY discoveries. The RE shall forward copies to MMC.

B. Discovery Notification Process
   1. In the event of a discovery, the Paleontological Monitor shall direct the contractor to temporarily divert trenching activities in the area of discovery and immediately notify the RE or BI, as appropriate.
   2. The Monitor shall immediately notify the PI (unless Monitor is the PI) of the discovery.
   3. The PI shall immediately notify MMC by phone of the discovery, and shall also submit written documentation to MMC within 24 hours by fax or email with photos of the resource in context, if possible.

C. Determination of Significance
   1. The PI shall evaluate the significance of the resource.
      a. The PI shall immediately notify MMC by phone to discuss significance determination and shall also submit a letter to MMC indicating whether additional mitigation is required. The determination of significance for fossil discoveries shall be at the discretion of the PI.
      b. If the resource is significant, the PI shall submit a Paleontological Recovery Program (PRP) and obtain written approval of the program from MMC, MC and/or RE. PRP and any mitigation must be approved by MMC, RE and/or MM before ground disturbing activities in the area of discovery will be allowed to resume.
         (1). Note: For pipeline trenching projects only, the PI shall implement the Discovery Process for Pipeline Trenching projects identified below under "D."
      c. If resource is not significant (e.g., small pieces of broken common shell fragments or other scattered common fossils) the PI shall notify the RE, or BI as appropriate, that a non-significant discovery has been made. The Paleontologist shall continue to monitor the area without notification to MMC unless a significant resource is encountered.
      d. The PI shall submit a letter to MMC indicating that fossil resources will be collected, curated, and documented in the Final Monitoring Report. The letter shall also indicate that no further work is required.
         (1). Note: For Pipeline Trenching Projects Only. If the fossil discovery is limited in size, both in length and depth; the information value is limited and there are no unique fossil features associated with the discovery area, then the discovery should be considered not significant.





(2). Note, for Pipeline Trenching Projects Only: If significance cannot be determined, the Final Monitoring Report and Site Record shall identify the discovery as Potentially Significant.

D. Discovery Process for Significant Resources - Pipeline Trenching Projects
   The following procedure constitutes adequate mitigation of a significant discovery encountered during pipeline trenching activities including but not limited to excavation for jacking pits, receiving pits, laterals, and manholes to reduce impacts to below a level of significance.
   1. Procedures for documentation, curation and reporting
      a. One hundred percent of the fossil resources within the trench alignment and width shall be documented in-situ photographically, drawn in plan view (trench and profiles of side walls), recovered from the trench and photographed after cleaning, then analyzed and curated consistent with Society of Invertebrate Paleontology Standards. The remainder of the deposit within the limits of excavation (trench walls) shall be left intact and so documented.
      b. The PI shall prepare a Draft Monitoring Report and submit to MMC via the RE as indicated in Section 4.7.1.1-A.
      c. The PI shall be responsible for recording (on the appropriate forms for the San Diego Natural History Museum) the resource(s) encountered during the Paleontological Monitoring Program in accordance with the City's Paleontological Guidelines. The forms shall be submitted to the San Diego Natural History Museum and included in the Final Monitoring Report.
      d. The Final Monitoring Report shall include a recommendation for monitoring of any future work in the vicinity of the resource.

***4.7.1.4 Night and/or Weekend Work***

A. If night and/or weekend work is included in the contract
   1. When night and/or weekend work is included in the contract package, the extent and timing shall be presented and discussed at the Pre-maintenance meeting.
   2. The following procedures shall be followed.
      a. No Discoveries
         In the event that no discoveries were encountered during night and/or weekend work, The PI shall record the information on the CSVR and submit to MMC via the RE via fax by 8AM on the next business day.
      b. Discoveries
         All discoveries shall be processed and documented using the existing procedures detailed in Section 4.7.1.3 - During Maintenance.
      c. Potentially Significant Discoveries
         If the PI determines that a potentially significant discovery has been made, the procedures detailed under Section 4.7.1.3 - During Maintenance shall be followed.
      d. The PI shall immediately contact the RE and MMC, or by 8AM on the next business day to report and discuss the findings as indicated in Section 4.7.1.3-



MAINTENANCE PLANS FOR

TIJUANA RIVER VALLEY ENVIRONMENTAL MITIGATION REQUIREMENTS

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING DEPARTMENT
SHEET 14 OF 15 SHEETS

W.O. NO. _____

CONTRACTOR MUST NOTIFY THE BELOW LISTED AGENCY AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION :

UNDERGROUND SERVICE ALERT (USA) 1-800-422-4133

FOR CITY ENGINEER _____ DATE _____

| DESCRIPTION | BY | APPROVED | DATE | FILMED |
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CONTRACTOR _____ DATE STARTED _____
INSPECTOR _____ DATE COMPLETED _____

SECTION HEAD _____
PROJECT MANAGER _____
DESIGN ENGINEER _____
140-1731
LAMBERT COORDINATES

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B, unless other specific arrangements have been made.

B. If night and/or weekend work becomes necessary during the course of maintenance
   1. The Maintenance Manager shall notify the RE, or BI, as appropriate, a minimum of 24 hours before the work is to begin.
   2. The RE, or BI, as appropriate, shall notify MMC immediately.

C. All other procedures described above shall apply, as appropriate.

***4.7.1.5 Post Maintenance***

A. Preparation and Submittal of Draft Monitoring Report
   1. The PI shall submit two copies of the Draft Monitoring Report (even if negative), prepared in accordance with the Paleontological Guidelines which describes the results, analysis, and conclusions of all phases of the Paleontological Monitoring Program (with appropriate graphics) to MMC via the RE for review and approval within 90 days following the completion of monitoring,
      a. For significant paleontological resources encountered during monitoring, the Paleontological Recovery Program or Pipeline Trenching Discovery Process shall be included in the Draft Monitoring Report.
      b. Recording Sites with the San Diego Natural History Museum
      The PI shall be responsible for recording (on the appropriate forms) any significant or potentially significant fossil resources encountered during the Paleontological Monitoring Program in accordance with the City's Paleontological Guidelines, and submittal of such forms to the San Diego Natural History Museum with the Final Monitoring Report.
   2. MMC shall return the Draft Monitoring Report to the PI via the RE for revision or, for preparation of the Final Report.
   3. The PI shall submit revised Draft Monitoring Report to MMC via the RE for approval.
   4. MMC shall provide written verification to the PI of the approved report.
   5. MMC shall notify the RE or BI, as appropriate, of receipt of all Draft Monitoring Report submittals and approvals.

B. Handling of Fossil Remains
   1. The PI shall be responsible for ensuring that all fossil remains collected are cleaned and catalogued.

C. Curation of artifacts: Deed of Gift and Acceptance Verification
   1. The PI shall be responsible for ensuring that all fossil remains associated with the monitoring for this project are permanently curated with an appropriate institution.
   2. The PI shall submit the Deed of Gift and catalogue record(s) to the RE or BI, as appropriate for donor signature with a copy submitted to MMC.
   3. The RE or BI, as appropriate shall obtain signature on the Deed of Gift and shall





return to PI with copy submitted to MMC.
   4. The PI shall include the Acceptance Verification from the curation institution in the Final Monitoring Report submitted to the RE or BI and MMC.

D. Final Monitoring Report(s)
   1. The PI shall submit two copies of the Final Monitoring Report to MMC (even if negative), within 90 days after notification from MMC of the approved report.
   2. The RE shall, in no case, issue the Notice of Completion until receiving a copy of the approved Final Monitoring Report from MMC which includes the Acceptance Verification from the curation institution.

**WATER QUALITY**

Potential impacts to water quality would be reduced to below a level of significance through implementation of the following mitigation measures.

***Mitigation Measure 4.8.1*:** Prior to commencement of any activity within a specific annual maintenance program, a qualified water quality specialist shall prepare an IWQA for each area proposed to be maintained. The IWQA shall be prepared in accordance with the specifications included in the Master Program. If the IWQA indicates that maintenance would impact a water pollutant where the existing level for that pollutant exceeds or is within 25 percent of the standard established by the San Diego Basin Plan, mitigation measures identified in Table 4.8-8 shall be incorporated into the IMP to reduce the impact to within the established standard for that pollutant.

**Table 4.8-8**
**MITIGATION MEASURES FOR REDUCED POLLUTANT REMOVAL CAPACITY**

| Mitigation Measure | Pollutant Type | | | | | | |
|---|---|---|---|---|---|---|---|
| | Bacteria | Metals | Nutrients | Pesticides | Sediment | TDS/ Chloride Sulfates | Trash |
| Remove kelp on beaches | | | | | ● | ● | |
| Sweep streets | ● | ● | ● | ● | ● | ● | ● |
| Retrofit residential landscaping to reduce runoff | ● | ● | ● | | ● | | |
| Install artificial turf | ● | ● | ● | ● | ● | | ● |
| Install inlet devices on storm drains | | ● | ● | | ● | | |
| Replace impermeable surfaces with permeable surfaces | | ● | ● | | ● | | ● |





**Table 4.8-8 (cont.)**
**MITIGATION MEASURES FOR REDUCED POLLUTANT REMOVAL CAPACITY**

| Mitigation Measure | Pollutant Type | | | | | | |
|---|---|---|---|---|---|---|---|
| | Bacteria | Metals | Nutrients | Pesticides | Sediment | TDS/ Chloride Sulfates | Trash |
| Install modular storm water filtration systems | | ● | ● | ● | ● | ● | ● |
| Install storm water retention basins | | ● | ● | ● | ● | ● | ● |
| Install catch basin media filters | | ● | ● | | ● | ● | ● |
| Create vegetated swales | ● | ● | ● | ● | ● | ● | ● |
| Restore wetlands | ● | ● | ● | ● | ● | ● | ● |
| Install check dams | | ● | | | ● | | ● |

***Mitigation Measure 4.8.2***: No maintenance activities within a proposed annual maintenance program shall be initiated before the City's ADD Environmental Designee and state and federal agencies with jurisdiction over maintenance activities have approved the IMPs and IWQAs including proposed mitigation and BMPs for each of the proposed activities. In their review, the ADD Environmental Designee and agencies shall also confirm that the appropriate maintenance protocols have been incorporated into each IMP.

***Mitigation Measure 4.8.3***: Prior to commencing any activity where the IWQA indicates significant water quality impacts may occur, a pre-maintenance meeting shall be held on site with following in attendance: City's SWD, MM, MMC, and MC. A qualified water quality specialist shall also be present. At this meeting, the water quality specialist shall identify and discuss mitigation measures, protocols and BMPs identified in the IWQA that must be carried out during maintenance. After the meeting, the water quality specialist shall provide DSD with a letter indicating that the applicable mitigation measures, protocols and BMPs identified in the IWQA have been appropriately implemented.



CONTRACTOR MUST NOTIFY THE BELOW LISTED AGENCY AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION :

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MAINTENANCE PLANS FOR

TIJUANA RIVER VALLEY ENVIRONMENTAL MITIGATION REQUIREMENTS

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING DEPARTMENT
SHEET 15 OF 15 SHEETS

W.O. NO.

FOR CITY ENGINEER DATE SECTION HEAD

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PROJECT MANAGER
DESIGN ENGINEER
140-1731
LAMBERT COORDINATES

CONTRACTOR _____ DATE STARTED _____
INSPECTOR _____ DATE COMPLETED _____

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| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
|---|---|---|---|
| **WATER QUALITY RESOURCE PROTECTION** | | | |
| MMP | WQ-1 | STABILIZE DESIGNATED ACCESS ROADS (OR OTHER GRADED AREAS) WITH PERMEABLE PROTECTIVE SURFACING (E.G., GRASSCRETE), STORM WATER DIVERSION STRUCTURES (E.G., BROW DITCHES OR BERMS), OR CROSSING STRUCTURES (E.G., CULVERTS) TO CONTROL EROSION AND PREVENT OFF-SITE SEDIMENT TRANSPORT. | Sheet 9 – 2, 7 |
| MMP | WQ-2 | PREVENT OFF-SITE SEDIMENT TRANSPORT DURING MAINTENANCE THROUGH THE USE EROSION AND SEDIMENT CONTROLS WITHIN STORM WATER FACILITIES, ALONG ACCESS ROUTES AND AROUND STOCKPILE/STAGING AREAS. INSTALL BMPS SUCH AS SILT FENCES, FIBER ROLLS; GRAVEL BAGS; TEMPORARY SEDIMENT BASINS; STABILIZED MAINTENANCE ACCESS POINTS (E.G., SHAKER PLATES); CONTAINMENT BARRIERS (E.G., SILT FENCE, FIBER ROLLS AND/OR BERMS) FOR MATERIAL STOCKPILES; AND PROPERLY FITTED COVERS FOR MATERIAL TRANSPORT VEHICLES. REMOVE TEMPORARY EROSION OR SEDIMENT CONTROL MEASURES UPON COMPLETION OF MAINTENANCE UNLESS THEIR REMOVAL WOULD RESULT IN GREATER ENVIRONMENTAL IMPACT THAN LEAVING THEM IN PLACE. | Sheet 9 – 2, 6 thru 18 |
| MMP | WQ-3 | STORE BMP MATERIALS ON-SITE TO PROVIDE COMPLETE PROTECTION OF EXPOSED AREAS AND PREVENT OFF-SITE SEDIMENT TRANSPORT. | Sheet 9 – 30 |
| MMP | WQ-4 | PROVIDE TRAINING FOR PERSONNEL RESPONSIBLE FOR THE PROPER INSTALLATION, INSPECTION, AND MAINTENANCE OF ON-SITE BMPS. | Sheet 9 – 37 |
| MMP | WQ-5 | RE-VEGETATE SPOIL AND STAGING AREAS WITHIN 30 DAYS OF COMPLETION OF MAINTENANCE ACTIVITIES. MONITOR AND MAINTAIN RE-VEGETATED AREAS FOR A PERIOD OF NOT LESS THAN 25 MONTHS FOLLOWING PLANTING. | Sheet 9 – 39 |
| MMP | WQ-6 | IMPLEMENT SAMPLING AND ANALYSIS; MONITORING AND REPORTING; AND POST-MAINTENANCE MANAGEMENT PROGRAMS PER NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) AND/OR CITY REQUIREMENTS. | Sheet 9 – 35 |
| MMP | WQ-7 | AVOID STORING HAZARDOUS MATERIALS USED DURING MAINTENANCE WITHIN 50 FEET FROM STORM WATER FACILITIES. HAZARDOUS MATERIALS SHALL BE MANAGED AND STORED IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. | Sheet 9 – 22 |
| MMP | WQ-8 | STORE MAINTENANCE-RELATED TRASH IN AREAS AT LEAST 50 FEET FROM STORM WATER FACILITIES, AND REMOVE ANY TRASH RECEPTACLES REGULARLY (AT LEAST WEEKLY). | Sheet 9 – 23 |
| MMP | WQ-10 | INSPECT EARTHEN-BOTTOM STORM WATER FACILITIES WITHIN 72 HOURS OF THE FIRST 2-YEAR STORM FOLLOWING MAINTENANCE. IMPLEMENT EROSION CONTROL MEASURES RECOMMENDED BY THE FIELD ENGINEER, SUCH AS FIBER BLANKETS, TO REMEDIATE SUBSTANTIAL EROSION WHICH HAS OCCURRED AND TO MINIMIZE FUTURE EROSION. | Sheet 9 – 36 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
|---|---|---|---|
| CDP-SPECIAL CONDITIONS | CDP-6B | BEST MANAGEMENT PRACTICES (BMPS) SHALL BE DESIGNED TO CONTROL EROSION FROM THE DISTURBED AREA AND PREVENT SEDIMENT AND POTENTIAL POLLUTANTS FROM ENTERING COASTAL WATERS AND/OR NATIVE HABITAT PLANT COMMUNITIES DURING CHANNEL MAINTENANCE ACTIVITIES. THE BMPS SHALL BE IMPLEMENTED PRIOR TO OR CONCURRENT WITH CONSTRUCTION AND MAINTAINED THROUGHOUT THE PROJECT. | Sheet 9 – 2, 6 thru 18 |
| CDP-SPECIAL CONDITIONS | CDP-6C | IN-STREAM EROSION AND TURBIDITY CONTROL MEASURES SHALL BE IMPLEMENTED DURING CHANNEL DREDGING ACTIVITIES. | Sheet 9 –10 thru 12 |
| CDP-SPECIAL CONDITIONS | CDP-6D | ANY NEWLY EXPOSED SLOPES SHALL BE STABILIZED TO MINIMIZE EROSION AND SEDIMENT FROM RUNOFF WATERS DURING MAINTENANCE ACTIVITIES USING MULCH, CONTOUR GRADING AND/OR OTHER ESTABLISHED METHODS WHERE FEASIBLE AND APPROPRIATE. | Sheet 9 – 6 thru 18 |
| CDP-SPECIAL CONDITIONS | CDP-6E | TEMPORARY STOCKPILES OF EXCAVATED SEDIMENT/VEGETATION SHOULD BE PROTECTED WITH GEOFABRIC OR OTHER APPROPRIATE COVER TO PREVENT DISPERSAL OF THE STOCKPILE MATERIALS. PERMANENT STOCKPILING OF EXCAVATED MATERIAL ON SITE SHALL NOT BE ALLOWED. VEGETATION AND SEDIMENT SHALL BE REMOVED FROM THE SITE(S) ON A REGULAR BASIS DURING CONSTRUCTION TO PREVENT THE ACCUMULATION OF SEDIMENT AND DEBRIS ON THE WORKSITE. EXCAVATED SEDIMENT AND VEGETATION SHALL BE STOCKPILED AT DESIGNATED TEMPORARY AREAS ON THE PROJECT SITE(S) AND BE REMOVED TO A PERMITTED DISPOSAL SITE WITHIN THREE MONTHS, UNLESS OTHERWISE EXTENDED, IN WRITING, BY THE EXECUTIVE DIRECTOR. | Sheet 9 –17, 18 |
| CDP-SPECIAL CONDITIONS | CDP-6F | DURING CONSTRUCTION, ALL TRASH SHALL BE PROPERLY CONTAINED IN A RECEPTACLE WITH A COVER OVER THE TOP TO PREVENT DISPERSAL OF TRASH, REMOVED FROM THE WORKSITE, AND DISPOSED OF ON A REGULAR BASIS (AT A MINIMUM OF ONCE PER WEEK). ANY DEBRIS DISCHARGED INTO COASTAL WATERS DURING IMPLEMENTATION OF THE APPROVED DEVELOPMENT SHALL BE RECOVERED IMMEDIATELY AND DISPOSED OF CONSISTENT WITH THE REQUIREMENTS OF THIS COASTAL DEVELOPMENT PERMIT AND OTHER RELEVANT STATE AND/OR FEDERAL REGULATORY CONTROLS. | Sheet 9 – 23 |
| CDP-SPECIAL CONDITIONS | CDP-6G | EQUIPMENT STAGING AND MATERIALS STOCKPILING AREAS SHALL BE LIMITED TO THE LOCATIONS AND SIZES SPECIFIED IN THE APPROVED FINAL CRPCP. CONSTRUCTION VEHICLES SHALL BE RESTRICTED TO DESIGNATED HAUL ROUTES. CONSTRUCTION EQUIPMENT AND MATERIALS SHALL BE STORED ONLY IN DESIGNATED STAGING AND STOCKPILING AREAS AS DEPICTED ON THE FINAL PLANS APPROVED FOR THE PROJECT. | Sheet 9 – 2 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
|---|---|---|---|
| CDP-SPECIAL CONDITIONS | CDP-6H | ANY FUELING AND MAINTENANCE OF CONSTRUCTION EQUIPMENT SHALL OCCUR WITHIN UPLAND AREAS OUTSIDE OF ENVIRONMENTALLY SENSITIVE HABITAT AREAS OR WITHIN DESIGNATED STAGING AREAS. MECHANIZED HEAVY EQUIPMENT AND OTHER VEHICLES USED DURING THE CONSTRUCTION PROCESS SHALL NOT BE REFUELED OR WASHED WITHIN 100 FEET OF COASTAL WATERS. | Sheet 9 – 31 |
| PEIR | WQ-4.8.1 | IF THE IWQA INDICATES THAT MAINTENANCE WOULD IMPACT A WATER POLLUTANT WHERE THE EXISTING LEVEL FOR THAT POLLUTANT EXCEEDS OR IS WITHIN 25 PERCENT OF THE STANDARD ESTABLISHED BY THE SAN DIEGO BASIN PLAN, MITIGATION MEASURES IDENTIFIED IN TABLE 4.8-8 OF THE PEIR SHALL BE INCORPORATED INTO THE IMP TO REDUCE THE IMPACT TO WITHIN THE ESTABLISHED STANDARD FOR THAT POLLUTANT. | N/A |
| PEIR | WQ-4.8.3 | PRIOR TO COMMENCING ANY ACTIVITY WHERE THE IWQA INDICATES SIGNIFICANT WATER QUALITY IMPACTS MAY OCCUR, A PRE MAINTENANCE MEETING SHALL BE HELD ON SITE WITH FOLLOWING IN ATTENDANCE: CITY'S SWD, MM, MMC, AND MC. A QUALIFIED WATER QUALITY SPECIALIST SHALL ALSO BE PRESENT. AT THIS MEETING, THE WATER QUALITY SPECIALIST SHALL IDENTIFY AND DISCUSS MITIGATION MEASURES, PROTOCOLS AND BMPS IDENTIFIED IN THE IWQA THAT MUST BE CARRIED OUT DURING MAINTENANCE. AFTER THE MEETING, THE WATER QUALITY SPECIALIST SHALL PROVIDE DSD WITH A LETTER INDICATING THAT THE APPLICABLE MITIGATION MEASURES, PROTOCOLS AND BMPS IDENTIFIED IN THE IWQA HAVE BEEN APPROPRIATELY IMPLEMENTED. | Sheet 10 – 2 |
| RWQCB 401 | 401-III.A | PRIOR TO THE START OF THE PROJECT, AND ANNUALLY THEREAFTER, CITY OF SAN DIEGO MUST EDUCATE ALL PERSONNEL ON THE REQUIREMENTS IN THIS CERTIFICATION, POLLUTION PREVENTION MEASURES, SPILL RESPONSE, AND BEST MANAGEMENT PRACTICES (BMPS) IMPLEMENTATION AND MAINTENANCE. | Sheet 9 – 37 |
| RWQCB 401 | 401-III.B | THE CITY OF SAN DIEGO MUST, AT ALL TIMES, MAINTAIN APPROPRIATE TYPES AND SUFFICIENT QUANTITIES OF MATERIALS ON-SITE TO CONTAIN ANY SPILL OR INADVERTENT RELEASE OF MATERIALS THAT MAY CAUSE A CONDITION OF POLLUTION OR NUISANCE IF THE MATERIALS REACH WATERS OF THE U.S. AND/OR STATE. | Sheet 9 – 27, 30 |
| RWQCB 401 | 401-III.C | THE CITY OF SAN DIEGO MUST ENROLL IN AND COMPLY WITH THE REQUIREMENTS OF STATE WATER RESOURCES CONTROL BOARD WATER QUALITY ORDER NO. 2009-0009-DWQ, NPDES NO. CAS000002, GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION AND LAND DISTURBANCE ACTIVITIES. | N/A |
| RWQCB 401 | 401-III.D | THE TREATMENT, STORAGE, AND DISPOSAL OF WASTEWATER DURING THE LIFE OF THE PROJECT MUST BE DONE IN ACCORDANCE WITH WASTE DISCHARGE REQUIREMENTS ESTABLISHED BY THE SAN DIEGO WATER BOARD PURSUANT TO CWC § 13260. | Sheet 9 – 24 |
| RWQCB 401 | 401-III.E | DISCHARGES OF CONCENTRATED FLOW DURING CONSTRUCTION OR AFTER COMPLETION MUST NOT CAUSE DOWNSTREAM EROSION OR DAMAGE TO PROPERTIES OR STREAM HABITAT. | Sheet 9 – 9 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
|---|---|---|---|
| RWQCB 401 | 401-III.F | WATER CONTAINING MUD, SILT, OR OTHER POLLUTANTS FROM EQUIPMENT WASHING OR OTHER ACTIVITIES, MUST NOT BE DISCHARGED TO WATERS OF THE U.S. AND/OR STATE OR PLACED IN LOCATIONS THAT MAY BE SUBJECTED TO STORM FLOWS. POLLUTANTS DISCHARGED TO AREAS WITHIN A STREAM DIVERSION AREA MUST BE REMOVED AT THE END OF EACH WORK DAY OR SOONER IF RAIN IS PREDICTED. | Sheet 9 – 31 |
| RWQCB 401 | 401-III.G | ALL SURFACE WATERS, INCLUDING PONDED WATERS, MUST BE DIVERTED AWAY FROM AREAS UNDERGOING GRADING, CONSTRUCTION, EXCAVATION, VEGETATION REMOVAL, AND/OR ANY OTHER ACTIVITY WHICH MAY RESULT IN A DISCHARGE TO THE RECEIVING WATER. DIVERSION ACTIVITIES MUST NOT RESULT IN THE DEGRADATION OF BENEFICIAL USES OR EXCEEDANCE OF WATER QUALITY OBJECTIVES OF THE RECEIVING WATERS. ANY TEMPORARY DAM OR OTHER ARTIFICIAL OBSTRUCTION CONSTRUCTED MUST ONLY BE BUILT FROM MATERIALS SUCH AS CLEAN GRAVEL WHICH WILL CAUSE LITTLE OR NO SILTATION. NORMAL FLOWS MUST BE RESTORED TO THE AFFECTED STREAM IMMEDIATELY UPON COMPLETION OF WORK AT THAT LOCATION | Sheet 9 – 9 |
| RWQCB 401 | 401-III.H | SUBSTANCES HAZARDOUS TO AQUATIC LIFE INCLUDING, BUT NOT LIMITED TO, PETROLEUM PRODUCTS, RAW CEMENT/CONCRETE, ASPHALT, AND COATING MATERIALS, MUST BE PREVENTED FROM CONTAMINATING THE SOIL AND/OR ENTERING WATERS OF THE U.S. AND/OR STATE. BMPS MUST BE IMPLEMENTED TO PREVENT SUCH DISCHARGES DURING EACH PROJECT ACTIVITY INVOLVING HAZARDOUS MATERIALS. | Sheet 9 – 17 thru 28 |
| RWQCB 401 | 401-III.I | REMOVAL OF VEGETATION MUST OCCUR BY HAND, MECHANICALLY, OR USING U.S. ENVIRONMENTAL PROTECTION AGENCY APPROVED HERBICIDES DEPLOYED WITH APPLICABLE BMPS TO PREVENT IMPACTS TO BENEFICIAL USES OF WATERS OF THE U.S. AND/OR STATE. USE OF AQUATIC PESTICIDES MUST BE DONE IN ACCORDANCE WITH STATE WATER RESOURCES CONTROL BOARD WATER QUALITY ORDER NO. 2004-0009-DWQ, AND ANY SUBSEQUENT REISSUANCE AS APPLICABLE. REMOVAL OF VEGETATION MUST OCCUR OUTSIDE OF THE AVIAN NESTING SEASON (MARCH 15-AUGUST 31). | Sheet 9 – 4 |
| RWQCB 401 | 401-III.J | REMOVAL AND DISPOSAL OF EXOTIC INVASIVE SPECIES SHALL BE DONE IN A MANNER THAT PREVENTS THE SPREAD OF EXOTIC INVASIVE SPECIES TO OTHER AREAS. | Sheet 9 – 5 |
| RWQCB 401 | 401-III.K | ALL OF THE YEARLY MAINTENANCE ACTIONS MUST BE COMPLETED BY MARCH 14 OF EACH YEAR. | Sheet 9 – 1 |
| RWQCB 401 | 401-III.L | THE DREDGED SEDIMENT MUST BE TEMPORARILY STOCKPILED AT TWO SEPARATE STAGING AREAS AS DESCRIBED IN THE MITIGATED NEGATIVE DECLARATION FOR THE TIJUANA RIVER PILOT AND SMUGGLER'S GULCH CHANNEL MAINTENANCE. (CITY OF SAN DIEGO, JULY 18, 2011). | Sheet 9 – 18 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
|---|---|---|---|
| RWQCB 401 | 401-III.M | MANAGEMENT OF DREDGED SEDIMENT STOCKPILES TEMPORARILY STORED AT THE STAGING AREA MUST COMPLY WITH R9-2007-0104, CONDITIONAL WAIVERS OF WASTE DISCHARGE REQUIREMENTS FOR SPECIFIC TYPES OF DISCHARGE WITHIN THE SAN DIEGO REGION, CONDITIONAL WAIVER 8. | Sheet 9 – 18 |
| ACOE 404 | 404-SC2 | PRIOR TO INITIATING CONSTRUCTION IN WATERS OF THE U.S., THE PERMITTEE SHALL SUBMIT TO THE CORPS REGULATORY DIVISION WRITTEN RESTORATION AND ENHANCEMENT PLANS SHOWING ALL WORK AND STRUCTURES IN WATERS OF THE U.S. ALL PLANS SHALL BE IN COMPLIANCE WITH THE FINAL MAP AND DRAWING STANDARDS FOR THE LOS ANGELES DISTRICT REGULATORY DIVISION DATED SEPTEMBER 21, 2009 (HTTP://WWW.SPL.USACE.ARMY.MI1!REGULATORY/PN/SPL-RG_MAP-DRAWING-STANDARD_FINACW-FIG.PDF).<br>ALL PLAN SHEETS SHALL BE SIGNED, DATED, AND SUBMITTED ON PAPER NO LARGER THAN LLX 17 INCHES. NO WORK IN WATERS OF THE U.S. IS AUTHORIZED UNTIL THE PERMITTEE RECEIVES, IN WRITING (BY LETTER OR E-MAIL), CORPS REGULATORY DIVISION APPROVAL OF THE FINAL DETAILED GRADING/CONSTRUCTION PLANS. THE PERMITTEE SHALL ENSURE THAT THE PROJECT IS BUILT IN ACCORDANCE WITH THE CORPS-APPROVED PLANS. NO DREDGED OR EXCAVATED MATERIAL SHALL BE DISPOSED IN WATERS OF THE U.S. WITHOUT PRIOR CORPS AUTHORIZATION. IF THE DREDGED MATERIAL IS STOCKPILED AND SCREENED AND TRANSPORTED TO THE BEACH THE CORPS MAY ALLOW DISCHARGE OF THE MATERIAL IF IT MEETS COMPLIANCE WITH THE REQUIREMENTS OF THE INLAND TESTING MANUAL (ITM) OR OTHER VALID CORPS OPPORTUNISTIC BEACH NOURISHMENT PERMITS. | None |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
|---|---|---|---|
| ACOE 404 | 404-SC3 | THE PERMITTEE SHALL CLEARLY MARK THE LIMITS OF THE WORKSPACE WITH FLAGGING OR SIMILAR MEANS TO ENSURE MECHANIZED EQUIPMENT DOES NOT ENTER PRESERVED WATERS OF THE U.S. AND RIPARIAN WETLAND/HABITAT AREAS SHOWN ON ATTACHED DRAWINGS. ADVERSE IMPACTS TO WATERS OF THE U.S. BEYOND THE CORPS-APPROVED CONSTRUCTION FOOTPRINT ARE NOT AUTHORIZED. SUCH IMPACTS COULD RESULT IN PERMIT SUSPENSION AND REVOCATION, ADMINISTRATIVE, CIVIL OR CRIMINAL PENALTIES, AND/OR SUBSTANTIAL, ADDITIONAL, COMPENSATORY MITIGATION REQUIREMENTS. WITHIN 60 CALENDAR DAYS OF COMPLETION OF AUTHORIZED WORK IN WATERS OF THE U.S., THE PERMITTEE SHALL SUBMIT TO THE CORPS REGULATORY DIVISION A POST-PROJECT IMPLEMENTATION MEMORANDUM INCLUDING THE FOLLOWING INFORMATION (ALSO SEE SPECIAL CONDITION 12):<br><br>A) DATE(S) WORK WITHIN WATERS OF THE U.S. WAS INITIATED AND COMPLETED;<br>B) SUMMARY OF COMPLIANCE STATUS WITH EACH SPECIAL CONDITION OF THIS PERMIT (INCLUDING ANY NONCOMPLIANCE THAT PREVIOUSLY OCCURRED OR IS CURRENTLY OCCURRING AND CORRECTIVE ACTIONS TAKEN OR PROPOSED TO ACHIEVE COMPLIANCE);<br>C) COLOR PHOTOGRAPHS (INCLUDING MAP OF PHOTOPOINTS) TAKEN AT THE PROJECT SITE BEFORE AND AFTER CONSTRUCTION FOR THOSE ASPECTS DIRECTLY ASSOCIATED WITH PERMANENT IMPACTS TO WATERS OF THE U.S. SUCH THAT THE EXTENT OF AUTHORIZED IMPACTS CAN BE VERIFIED;<br>D) ONE COPY OF "AS BUILT" DRAWINGS OR PLANS FOR THE ENTIRE PROJECT. ELECTRONIC SUBMITTAL (ADOBE PDF FORMAT) IS PREFERRED. ALL SHEETS MUST BE SIGNED, DATED, AND TO-SCALE. IF SUBMITTING PAPER COPIES, SHEETS MUST BE NO LARGER THAN 11 X 17 INCHES; AND<br>E) SIGNED CERTIFICATION OF COMPLIANCE (ATTACHED AS PART OF THIS PERMIT PACKAGE). | Sheet 10 - 6 |
| ACOE 404 | 404-SC13 | THE PERMITTEE SHALL ENSURE THAT SUBSTANCES HAZARDOUS TO AQUATIC LIFE INCLUDING, BUT NOT LIMITED TO, PETROLEUM PRODUCTS, RAW CEMENT/CONCRETE, ASPHALT, AND COATING MATERIALS, ARE PREVENTED FROM CONTAMINATING THE SOIL AND/OR ENTERING WOUS AND/OR STATE. BMPS MUST BE IMPLEMENTED TO PREVENT SUCH DISCHARGES DURING EACH PROJECT ACTIVITY INVOLVING HAZARDOUS MATERIALS. | Sheet 9 – 17 thru 28 |
| ACOE 404 | 404-SC15 | THE PERMITTEE SHALL ENSURE THE DREDGED SEDIMENT WILL BE TEMPORARILY STOCKPILED AT SEPARATE STAGING AREAS AS DESCRIBED IN THE TIJUANA RIVER VALLEY EMERGENCY CHANNEL MAINTENANCE PROJECT DESCRIPTION, (CITY OF SAN DIEGO, OCTOBER 1, 2009). | Sheet 9 – 18 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
|---|---|---|---|
| ACOE 404 | 404-SC16 | NO DEBRIS, SAND, SILT, TRASH, CONCRETE OR WASHINGS THEREOF, OIL OR OTHER PETROLEUM PRODUCTS OR WASHINGS THEREOF, OR OTHER FOREIGN MATERIALS SHALL BE ALLOWED TO ENTER OR BE PLACED WHERE IT MAY BE WASHED BY RAINFALL OR RUNOFF WATERS INTO WOUS. UPON PROJECT COMPLETION, ANY AND ALL EXCESS CONSTRUCTION MATERIALS, DEBRIS, AND/OR OTHER EXCESS PROJECT MATERIALS SHALL BE REMOVED TO AN APPROPRIATE UPLAND DISPOSAL SITE (NOT WOUS, INCLUDING JURISDICTIONAL WETLANDS). | Sheet 9 – 6 thru 32 |
| ACOE 404 | 404-SC17 | THE PERMITTEE SHALL INSTALL SILT FENCES TO TRAP ERODED SEDIMENTS ON-SITE AND TO DIVERT RUNOFF AROUND DISTURBED SOILS WITHIN THE STAGING AREAS. SILT FENCES SHALL ALSO BE PLACED ALONG THE TOPS AND TOES OF SLOPES OF ACCESS ROADS, AS NECESSARY, TO PREVENT SILT FROM DISCHARGING INTO WOUS. | Sheet 9 – 9 |
| ACOE 404 | 404-SC18 | THE PERMITTEE SHALL REGULARLY APPLY WATER TO CONSTRUCTION AREAS TO CONTROL DUST IN ORDER TO MINIMIZE IMPACTS TO WOUS ADJACENT TO CONSTRUCTION AREAS. OTHER CONDITIONS PERMITTEE SHALL ABIDE BY TO MITIGATE STAGING AND CONSTRUCTION OPERATIONS TO ADJACENT PROPERTY OWNERS (APOS) NEAR STAGING AREA B INCLUDE: 1) THE EXISTING STOCKPILE ONSITE BE REMOVED AS SOON AS POSSIBLE, 2) NEW STOCKPILES BE ELIMINATED OR MOVED AT LEAST 100 FT. OR BETTER PLACED AND COVERED AS PRACTICABLE, 3) BMPS ARE IN PLACE AND MONITORED FOR AIR, DUST CONTROL, FUELING, VIBRATION, TRASH CONTROL, AND NOISE IMPACTS TO AVOID IMPACTS TO ADJACENT PROPERTIES TO THE MAXIMUM EXTENT PRACTICABLE, AND 4) ASSIST CORPS REVIEW OF NEED FOR STAGING AREA B; AND REVIEW OF OTHER STAGING REPLACEMENT SITES SUCH AS STAGING AREA A PREVIOUSLY USED IN PAST MAINTENANCE. PERMITTEE SHALL BE NOTIFIED WHEN APOS SUBMIT CONCERNS TO PERMITTEE AND THE CORPS SHALL COORDINATE WITH APOS AND PERMITTEE AS APPROPRIATE. | Sheet 9 – 6, 18 |
| ACOE 404 | 404-SC19 | THE PERMITTEE SHALL ENSURE THAT EQUIPMENT NECESSARY TO EXTINGUISH SMALL BRUSH FIRES (FROM SPARKING VEHICLES, ETC.) IS PRESENT ON-SITE DURING ALL PHASES OF PROJECT ACTIVITIES, ALONG WITH TRAINED PERSONNEL FOR USE OF SUCH EQUIPMENT. | Sheet 9 – 33 |
| CDFG 1600 | 1600-1.5 | NOTIFICATION PRIOR TO WORK. THE PERMITTEE SHALL NOTIFY DFG, IN WRITING, AT LEAST FIVE DAYS PRIOR TO INITIATION OF CONSTRUCTION (PROJECT) ACTIVITIES AND AT LEAST FIVE DAYS PRIOR TO COMPLETION OF CONSTRUCTION (PROJECT) ACTIVITIES, EACH TIME PROJECT ACTIVITIES OCCUR. NOTIFICATION SHALL BE SENT TO DFG'S SOUTH COAST OFFICE AT THE ADDRESS ABOVE,<br>ATTN: STREAMBED ALTERATION PROGRAM - SM # 1600-2011-0271-R5. | Sheet 10 – 3 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
|---|---|---|---|
| CDFG 1600 | 1600-2.11 | HERBICIDE USE IN CONFORMANCE WITH APPLICABLE LAWS. NOTHING IN THIS AGREEMENT REPRESENTS A PESTICIDE USE RECOMMENDATION THAT ALLOWS FOR AN ACTION THAT CONFLICTS WITH PESTICIDE USE REGULATIONS. ALL HERBICIDE USE CONDITIONS FOR MIXING, APPLICATION AND CLEAN-UP SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS. ANY APPLICATION OF HERBICIDE SHALL BE DONE BY A LICENSED OR CERTIFIED APPLICATOR IN ACCORDANCE WITH ALL APPLICABLE, FEDERAL, STATE, AND LOCAL LAWS. | Sheet 10 – 1 |
| CDFG 1600 | 1600-2.12 | HERBICIDES APPROVED FOR USE NEAR WATER. ANY HERBICIDE USED WHERE THERE IS THE POSSIBILITY THAT THE HERBICIDE COULD COME INTO DIRECT CONTACT WITH WATER SHALL BE APPROVED FOR USE IN AN AQUATIC ENVIRONMENT. GREAT CARE SHALL BE TAKEN TO AVOID CONTACT WITH ANY NATIVE VEGETATION, AND HERBICIDE SHALL ONLY BE APPLIED ON CALM DAYS TO PREVENT AIRBORNE TRANSFER OF THE HERBICIDE, | Sheet 10 – 1 |
| CDFG 1600 | 1600-2.14 | HERBICIDE MIXING SITES. HERBICIDE MIXING SITES SHALL ONLY BE LOCATED IN AREAS DEVOID OF VEGETATION, AND WHERE THERE IS NO POTENTIAL OF A SPILL REACHING A VEGETATED AREA OR A STREAM, FOR EXAMPLE AVOID MIXING AT A STORM WATER-INLET. | Sheet 10 – 1 |
| CDFG 1600 | 1600-2.15 | REMOVE CLEARED MATERIAL FROM STREAM. ALL TRIMMED OR CLEARED MATERIAL/VEGETATION SHALL BE REMOVED FROM THE AREA AND DEPOSITED WHERE IT CANNOT RE-ENTER THE STREAM. | Sheet 9 – 18 |
| CDFG 1600 | 1600-2.16 | SPOIL SITES. SPOIL SITES SHALL NOT BE LOCATED WITHIN A STREAM, WHERE SPOILS MAY BE WASHED BACK INTO A STREAM, OR WHERE IT MAY COVER AQUATIC OR RIPARIAN VEGETATION. | Sheet 9 – 18 |
| CDFG 1600 | 1600-2.17 | MOVEMENT OF ROCK. GRAVEL AND OTHER MATERIALS, ROCK, GRAVEL, AND/OR OTHER MATERIALS SHALL NOT BE IMPORTED TO, TAKEN FROM OR MOVED WITHIN THE BED OR BANKS OF THE STREAM EXCEPT AS ADDRESSED IN THIS AGREEMENT. | Sheet 9 – 2 |
| CDFG 1600 | 1600-2.18 | AUTHORIZED STRUCTURES. THIS AGREEMENT DOES NOT AUTHORIZE THE CONSTRUCTION OF ANY TEMPORARY OR PERMANENT DAM, STRUCTURE, FLOW RESTRICTION OR FILL EXCEPT AS DESCRIBED IN THE PERMITTEE'S NOTIFICATION. | None |
| CDFG 1600 | 1600-2.19 | MINIMIZE TURBIDITY AND SILTATION. PERMITTEE SHALL TAKE PRECAUTIONS TO MINIMIZE TURBIDITY/SILTATION DURING CONSTRUCTION AND POST-CONSTRUCTION PERIODS, PRECAUTIONS SHALL INCLUDE, BUT ARE NOT LIMITED TO: PRE-CONSTRUCTION PLANNING TO IDENTIFY SITE SPECIFIC TURBIDITY AND SILTATION MINIMIZATION MEASURES AND BEST MANAGEMENT EROSION CONTROL PRACTICES; BEST MANAGEMENT EROSION CONTROL PRACTICES DURING PROJECT ACTIVITY; AND SETTLING, FILTERING, OR OTHERWISE TREATING SILTY AND TURBID WATER PRIOR TO DISCHARGE INTO A STREAM OR STORM DRAIN. | Sheet 9 – 7 thru 15 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
|---|---|---|---|
| CDFG 1600 | 1600-2.20 | DIVERSION PLAN. IF FLOWING WATER IS PRESENT OR REASONABLY ANTICIPATED, THE PERMITTEE SHALL SUBMIT FOR APPROVAL A DETAILED WATER DIVERSION/DEWATERING PLAN TO DFG, DFG WILL REVIEW THE PROPOSED WATER DIVERSION METHOD, TO APPROVE THE PLAN OR PROVIDE THE REQUIREMENTS FOR THAT APPROVAL. THE PERMITTEE MAY NOT COMMENCE THE DEWATERING OF THE STREAM OR DIVERSION OF WATER WITHOUT THE EXPLICIT APPROVAL FROM DFG. | N/A |
| CDFG 1600 | 1600-2.21 | WEATHER RESTRICTIONS. THE PERMITTEE SHALL MONITOR THE FIVE DAY WEATHER FORECAST. IF ANY PRECIPITATION IS FORECASTED, WORK ACTIVITIES SHALL INVOLVE THE SECURING OF THE SITE SO AS NO MATERIALS MAY ENTER OR BE WASHED INTO THE STREAM. THE SITE SHALL BE COMPLETELY SECURED ONE DAY PRIOR TO PRECIPITATION, UNLESS PRIOR WRITTEN APPROVAL HAS BEEN PROVIDED BY DFG. DURING PERIOD OF PRECIPITATION, NO CONSTRUCTION ACTIVITIES MAY OCCUR; ACTIVITIES INVOLVING THE PREVENTING OF MATERIALS FROM ENTERING THE STREAM OR BEING WASHED DOWNSTREAM MAY BE CONDUCTED. IN THE EVENT THAT ONE INCH OF PRECIPITATION IS ACCUMULATED WITHIN THE WATERSHED, NO ACTIVITIES SHALL OCCUR ON SITE FOR TWO WEEKS, OR UNTIL THE FLOWS HAVE RECEDED AND THE MOISTURE CONTENT OF THE SOILS HAS STABILIZED. | Sheet 9 – 34 |
| CDFG 1600 | 1600-2.22 | MINIMIZE VEHICLE PARKING. VEHICLES MAY ENTER AND EXIT THE WORK AREA AS NECESSARY FOR PROJECT ACTIVITIES, BUT MAY NOT BE PARKED OVERNIGHT WITHIN TEN (10) FEET OF THE DRIP LINE OF ANY TREES; NOR SHALL VEHICLES BE PARKED WHERE MECHANICAL FLUID LEAKS MAY POTENTIALLY ENTER THE WATERS OF THE STATE. | Sheet 9 – 31 |
| CDFG 1600 | 1600-2.23 | EQUIPMENT AND VEHICLE SPILLS AND CONTAMINANTS. ANY EQUIPMENT OR VEHICLES DRIVEN AND/OR OPERATED WITHIN OR ADJACENT TO THE STREAM SHALL BE CHECKED AND MAINTAINED DAILY, TO PREVENT LEAKS OF MATERIALS THAT IF INTRODUCED TO WATER COULD BE DELETERIOUS TO AQUATIC LIFE. THE PERMITTEE SHALL MAINTAIN ALL VEHICLES AND EQUIPMENT IN PROPER WORKING CONDITION TO MINIMIZE FUGITIVE EMISSIONS AND ACCIDENTAL SPILLS FROM MOTOR OIL, ANTIFREEZE, HYDRAULIC FLUID, GREASE, OR OTHER FLUIDS OR HAZARDOUS MATERIALS. ALL FUEL OR HAZARDOUS WASTE LEAKS, SPILLS, OR RELEASES SHALL BE STOPPED OR REPAIRED IMMEDIATELY AND CLEANED UP AT THE TIME OF OCCURRENCE. THE PERMITTEE SHALL BE RESPONSIBLE FOR SPILL MATERIAL REMOVAL AND DISPOSAL TO AN APPROVED OFFSITE LANDFILL AND SPILL REPORTING TO THE PERMITTING AGENCIES. SERVICE CONSTRUCTION EQUIPMENT SHALL BE STORED AT DESIGNATED AREAS ONLY. SERVICE/MAINTENANCE VEHICLES SHALL CARRY APPROPRIATE EQUIPMENT AND MATERIALS TO ISOLATE AND REMEDIATE LEAKS OR SPILLS. A SPILL CONTAINMENT KIT SHALL BE AVAILABLE ONSITE FOR ALL FUELING, MAINTENANCE, AND CONSTRUCTION ACTIVITIES. | Sheet 9 – 22, 27, 31 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
|---|---|---|---|
| CDFG 1600 | 1600-2.24 | DRIP PANS. STATIONARY EQUIPMENT SUCH AS CRANES, MOTORS, PUMPS, GENERATORS, AND WELDERS LOCATED WITHIN OR ADJACENT TO THE STREAM SHALL BE POSITIONED OVER DRIP PANS. | Sheet 9 – 32 |
| CDFG 1600 | 1600-2.25 | NO EQUIPMENT MAINTENANCE IN STREAM. NO EQUIPMENT MAINTENANCE SHALL BE DONE WITHIN OR NEAR ANY STREAM/LAKE WHERE PETROLEUM PRODUCTS OR OTHER POLLUTANTS FROM THE EQUIPMENT MAY ENTER THESE AREAS UNDER ANY FLOW. | Sheet 9 – 31 |
| CDFG 1600 | 1600-2.26 | KEEP POLLUTED WATER FROM ENTERING STREAM. WATER CONTAINING MUD, SILT, OR OTHER POLLUTANTS FROM AGGREGATE WASHING OR OTHER ACTIVITIES SHALL NOT BE ALLOWED TO ENTER A FLOWING STREAM OR PLACED IN LOCATIONS THAT MAY BE SUBJECT TO HIGH STORM FLOWS. | Sheet 9 – 9 |
| CDFG 1600 | 1600-2.27 | KEEP POLLUTANTS OUT OF STREAM. NO DEBRIS, SOIL, SILT, SAND, BARK, SLASH, SAWDUST, RUBBISH, CONSTRUCTION WASTE, CEMENT OR CONCRETE OR WASHINGS THEREOF, ASPHALT, PAINT, OIL OR OTHER PETROLEUM PRODUCTS, OR ANY OTHER SUBSTANCES/MATERIALS ASSOCIATED WITH ANY PROJECT-RELATED ACTIVITY SHALL BE ALLOWED TO CONTAMINATE THE SOIL AND/OR ENTER INTO OR BE PLACED WHERE THEY MAY BE WASHED BY RAINFALL OR RUNOFF INTO A STREAM OR LAKE. ANY OF THESE SUBSTANCES/MATERIALS, PLACED WITHIN OR WHERE THEY MAY ENTER A STREAM OR LAKE, BY THE PERMITTEE OR ANY PARTY WORKING UNDER CONTRACT, OR WITH THE PERMISSION OF THE PERMITTEE, SHALL BE REMOVED IMMEDIATELY UPON OBSERVATION OF THEIR PRESENCE. WHEN OPERATIONS ARE COMPLETED, ANY EXCESS MATERIALS OR DEBRIS SHALL BE REMOVED FROM THE WORK AREA. | Sheet 9 – 6 thru 32 |
| CDFG 1600 | 1600-2.28 | 150-FOOT HIGH WATER MARK. NO RUBBISH SHALL BE DEPOSITED WITHIN 150 FEET OF THE HIGH WATER MARK OF ANY STREAM. | Sheet 9 - 23 |
| CDFG 1600 | 1600-2.29 | LOCATION OF STORAGE/STAGING AREAS. STAGING/STORAGE AREAS FOR EQUIPMENT AND MATERIALS SHALL BE LOCATED OUTSIDE OF THE STREAM. | Sheet 9 – 18 |
| USFWS BO | BO-CM2 | THE CITY WILL TEMPORARILY FENCE (WITH SILT BARRIERS) THE LIMITS OF PROJECT CONSTRUCTION STAGING AREAS AND ACCESS ROUTES AND MARK (E.G., FLAG) THE LIMITS OF DREDGING/EXCAVATION TO PREVENT ADDITIONAL IMPACTS AND THE SPREAD OF SILT FROM THE CONSTRUCTION ZONE INTO ADJACENT AVOIDED HABITATS. FENCING/MARKING WILL BE INSTALLED IN A MANNER THAT DOES NOT IMPACT AVOIDED HABITATS. THE CITY WILL SUBMIT TO THE AGENCIES FOR APPROVAL, AT LEAST 2 DAYS PRIOR TO INITIATING PROJECT IMPACTS, PHOTOGRAPHS THAT SHOW THE FENCED/MARKED LIMITS OF IMPACT. IF WORK OCCURS BEYOND THE FENCED/MARKED LIMITS OF IMPACT, ALL WORK WILL CEASE UNTIL THE PROBLEM HAS BEEN REMEDIED TO THE SATISFACTION OF THE AGENCIES. ANY RIPARIAN/WETLAND OR UPLAND HABITAT IMPACTS THAT OCCUR BEYOND THE APPROVED FENCED WILL BE OFFSET AT A AS DETERMINED BY THE AGENCIES. TEMPORARY CONSTRUCTION FENCING/MARKING WILL BE REMOVED UPON PROJECT COMPLETION. | Sheet 9 – 9 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
|---|---|---|---|
| USFWS BO | BO-CM6 | THE CITY WILL ENSURE THAT THE FOLLOWING ENVIRONMENTALLY RESPONSIBLE PRACTICES ARE IMPLEMENTED DURING PROJECT CONSTRUCTION:<br><br>A) CONTRACTORS AND CONSTRUCTION PERSONNEL WILL STRICTLY LIMIT THEIR ACTIVITIES, VEHICLES, EQUIPMENT, AND CONSTRUCTION MATERIALS TO THE FENCED PROJECT FOOTPRINT;<br>B) THE PROJECT SITE WILL BE KEPT AS CLEAN OF DEBRIS AS POSSIBLE. ALL FOOD RELATED TRASH ITEMS WILL BE ENCLOSED IN SEALED CONTAINERS AND REGULARLY REMOVED FROM THE SITE;<br>C) PETS OF PROJECT PERSONNEL WILL NOT BE ALLOWED ON THE PROJECT SITE;<br>D) ALL EQUIPMENT MAINTENANCE, STAGING, AND DISPENSING OF FUEL, OIL, COOLANT, OR ANY OTHER SUCH ACTIVITIES WILL OCCUR IN DESIGNATED AREAS OUTSIDE OF WATERS OF THE UNITED STATES WITHIN THE FENCED PROJECT IMPACT LIMITS. THESE DESIGNATED AREAS WILL BE LOCATED IN PREVIOUSLY COMPACTED AND DISTURBED AREAS TO THE MAXIMUM EXTENT PRACTICABLE IN SUCH A MANNER AS TO PREVENT ANY RUNOFF FROM ENTERING WATERS OF THE UNITED STATES AND WILL BE SHOWN ON THE CONSTRUCTION PLANS. FUELING OF EQUIPMENT WILL TAKE PLACE WITHIN EXISTING PAVED AREAS GREATER THAN 100 FEET FROM WATERS OF THE UNITED STATES. CONTRACTOR EQUIPMENT WILL BE CHECKED FOR LEAKS PRIOR TO OPERATION AND REPAIRED AS NECESSARY. "NO-FUELING ZONES" WILL BE DESIGNATED ON CONSTRUCTION PLANS; AND<br>E) IMPACTS FROM FUGITIVE DUST WILL BE AVOIDED AND MINIMIZED THROUGH WATERING AND OTHER APPROPRIATE MEASURES; AND<br>F) NO WORK WILL OCCUR AT NIGHT. | Sheet 9 – 2, 6, 23, 31 |
| **BIOLOGICAL RESOURCE PROTECTION** | | | |
| MMP | BIO-1 | RESTRICT VEHICLES TO ACCESS DESIGNATED IN THE MASTER PROGRAM. | Sheet 9 – 2 |
| MMP | 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). | Sheet 10 – 1, 2 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
|---|---|---|---|
| MMP | 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). | Sheet 10 – 2 |
| MMP | BIO-4 | AVOID INTRODUCTION OF INVASIVE PLANT SPECIES WITH PHYSICAL EROSION CONTROL MEASURES (E.G., FIBER MULCH, RICE STRAW, ETC.). | Sheet 10 – 4 |
| MMP | 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. | Sheet 10 – 1, 2 |
| MMP | 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. | Sheet 10 – 5 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
|---|---|---|---|
| MMP | 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. | Sheet 10 – 1, 2 |
| CDP-SPECIAL CONDITIONS | CDP-5 | TO AVOID POTENTIAL IMPACTS TO COASTAL CALIFORNIA GNATCATCHER, LEAST BELL'S VIREO, AND OTHER SENSITIVE BIRD SPECIES, DURING THEIR NESTING SEASON, MAINTENANCE ACTIVITIES WITHIN VEGETATED CHANNELS WILL NOT BE PERMITTED BETWEEN THE DATES OF FEBRUARY 15$^{TH}$ AND SEPTEMBER 15$^{TH}$ OF ANY YEAR; UNLESS WRITTEN PERMISSION FROM THE CALIFORNIA DEPARTMENT OF FISH AND GAME AND US FISH AND WILDLIFE SERVICE IS PROVIDED TO THE EXECUTIVE DIRECTOR FOR REVIEW AND WRITTEN APPROVAL. | Sheet 9 – 1 |
| CDP-SPECIAL CONDITIONS | CDP-6A | PRIOR TO THE OF CONSTRUCTION, THE LIMITS OF THE WORK AREAS AND STAGING AREAS SHALL BE DELINEATED IN COOPERATION WITH A QUALIFIED BIOLOGIST, LIMITING THE POTENTIAL AREA AFFECTED BY CONSTRUCTION AND ENSURING THAT ALL AGRICULTURAL LANDS, WETLANDS, AND OTHER ENVIRONMENTALLY SENSITIVE HABITATS ADJACENT TO CONSTRUCTION AREAS ARE AVOIDED DURING CONSTRUCTION. ALL VEHICLES AND EQUIPMENT SHALL BE RESTRICTED TO THESE PRE-ESTABLISHED WORK AREAS AND HAUL ROUTES AND TO ESTABLISHED OR DESIGNATED STAGING AREAS. CLEARING AND GRADING SHALL BE LIMITED TO THE MINIMAL FOOTPRINT NECESSARY AND FOR THE SHORTEST TIME NECESSARY TO AVOID IMPACTS TO ADJACENT ESHA, RIPARIAN HABITAT AND COASTAL WATERS. | Sheet 9 – 2, Sheet 10 - 1 |
| PEIR | BIO-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), MITIGATION MONITORING COORDINATOR (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. | Sheet 10 – 2 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
|---|---|---|---|
| PEIR | BIO-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:<br>• FENCING, FLAGGING, SIGNAGE, OR OTHER MEANS TO PROTECT SENSITIVE RESOURCES TO REMAIN AFTER MAINTENANCE HAS BEEN IMPLEMENTED;<br>• NOISE ATTENUATION MEASURES NEEDED TO PROTECT SENSITIVE WILDLIFE ARE IN PLACE AND EFFECTIVE; AND/OR<br>• NESTING RAPTORS HAVE BEEN IDENTIFIED AND NECESSARY MAINTENANCE SETBACKS HAVE BEEN ESTABLISHED IF MAINTENANCE IS TO OCCUR BETWEEN JANUARY 15 AND AUGUST 31.<br>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<br>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. | Sheet 10 – 1, 6 |
| PEIR | BIO-4.3.16 | MAINTENANCE ACTIVITIES SHALL NOT OCCUR WITHIN THE FOLLOWING AREAS:<br>• 300 FEET FROM ANY NESTING SITE OF COOPER'S HAWK (ACCIPITER COOPERII);<br>• 1,500 FEET FROM KNOWN LOCATIONS OF THE SOUTHERN POND TURTLE (CLEMMYS MARMORATA PALLIDA);<br>• 900 FEET FROM ANY NESTING SITES OF NORTHERN HARRIERS (CIRCUS CYANEUS);<br>• 4,000 FEET FROM ANY NESTING SITES OF GOLDEN EAGLES (AQUILA CHRYSAETOS); OR<br>• 300 FEET FROM ANY OCCUPIED BURROW OR BURROWING OWLS (ATHENE CUNICULARIA). | Sheet 10 – 1 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
|---|---|---|---|
| PEIR | BIO-4.3.17 | IF EVIDENCE INDICATES THE POTENTIAL IS HIGH FOR A LISTED SPECIES TO BE PRESENT, BASED ON HISTORICAL RECORDS OR SITE CONDITIONS, THEN CLEARING, GRUBBING, OR GRADING (INSIDE AND OUTSIDE THE MHPA) SHALL BE RESTRICTED DURING THE BREEDING SEASON WHERE DEVELOPMENT MAY IMPACT THE FOLLOWING SPECIES:<br>• LIGHT-FOOTED CLAPPER RAIL (BETWEEN FEBRUARY 15 AND AUGUST 15);<br>• WESTERN SNOWY PLOVER (BETWEEN MARCH 1 AND SEPTEMBER 15);<br>• LEAST TERN (BETWEEN APRIL 1 AND SEPTEMBER 15);<br>• CACTUS WREN (BETWEEN FEBRUARY 15 AND AUGUST 15); OR<br>• TRICOLORED BLACK BIRD (BETWEEN MARCH 1 AND AUGUST 1.<br><br>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 SHALL BE IMPLEMENTED. | Sheet 9 – 1 |
| PEIR | BIO-4.3.18 | IF A SUBJECT SPECIES IS NOT DETECTED DURING THE PROTOCOL SURVEY, THE QUALIFIED BIOLOGIST SHALL SUBMIT SUBSTANTIAL EVIDENCE TO THE CITY'S ASSISTANT DEPUTY DIRECTOR (ADD) ENVIRONMENTAL DESIGNEE AND AN APPLICABLE RESOURCE AGENCY WHICH DEMONSTRATES WHETHER OR NOT MITIGATION MEASURES SUCH AS NOISE WALLS ARE NECESSARY BETWEEN THE DATES STATED ABOVE FOR EACH SPECIES. IF THIS EVIDENCE CONCLUDES THAT NO IMPACTS TO THIS SPECIES ARE ANTICIPATED, NO MITIGATION MEASURES WOULD BE NECESSARY. | Sheet 10 – 1 |
| PEIR | BIO-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. | Sheet 10 – 1 |
| PEIR | BIO-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 THE PROTECTED HABITAT SHALL CEASE FOR THE DURATION OF THE BREEDING SEASON OF THE APPROPRIATE SPECIES AND A QUALIFIED BIOLOGIST SHALL ESTABLISH A LIMIT OF WORK. | Sheet 10 – 1 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
|---|---|---|---|
| PEIR | BIO-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. | Sheet 10 – 6 |
| PEIR | BIO-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. | Sheet 10 – 6 |
| PEIR | BIO-4.3.23 | IF MAINTENANCE ACTIVITIES WOULD OCCUR AT KNOWN LOCALITIES FOR LISTED FISH SPECIES OR WITHIN SUITABLE HABITAT FOR OTHER HIGHLY SENSITIVE AQUATIC SPECIES (I.E., SOUTHWESTERN POND TURTLE), AVOIDANCE OR MINIMIZATION MEASURES (I.E., EXCLUSIONARY FENCING, DEWATERING OF THE ACTIVITY AREA, LIVE-TRAPPING, AND TRANSLOCATION TO SUITABLE HABITAT) MUST BE IMPLEMENTED. | Sheet 10 – 1 |
| PEIR | BIO-4.3.24 | 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. | Sheet 10 – 1 , 2 |
| PEIR | 4.3.25 | 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. | Sheet 9 – 1, Sheet 10 – 1, 2 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
|---|---|---|---|
| ACOE 404 | 404-SC5 | IF TEMPORARY IMPACTS OCCUR THEN THE PERMITTEE SHALL ENSURE ALL SITES WITHIN WATERS OF THE U.S. SUBJECT TO AUTHORIZED, TEMPORARY IMPACTS ARE RESTORED TO PRE-PROJECT ALIGNMENTS, ELEVATION CONTOURS, AND CONDITIONS, INCLUDING RE-VEGETATION WITH APPROPRIATE NATIVE PLANT SPECIES AFTER COMPLETION OF CONSTRUCTION IN THE AREA, AS DESCRIBED IN THE FINAL, CORPS-APPROVED MITIGATION PLAN: "CONCEPTUAL WETLANDS MITIGATION AND MONITORING PLAN" (DATED AUGUST 2010, AND PREPARED BY DUDEK). AT A MINIMUM, THE ACREAGE OF WATERS OF THE U.S. AND AQUATIC RESOURCE FUNCTIONS OF EACH SITE SHALL EQUAL OR EXCEED PRE-PROJECT ACREAGE OF WATERS OF THE U.S. AND AQUATIC RESOURCE FUNCTIONS BY THE END OF THE MONITORING PERIOD AS SPECIFIED IN THE PLAN. FUNCTIONS FOR THE ABOVE IMPACT AREAS SHALL BE ASSESSED ANNUALLY USING CRAM, RSRA, OR A SIMILAR CORPS-APPROVED FUNCTIONAL/CONDITION ASSESSMENT METHOD AS DESCRIBED IN THE ABOVE-MENTIONED MITIGATION PLAN. THE PERMITTEE'S RESPONSIBILITY TO COMPLETE THE REQUIRED RESTORATION AS SET FORTH IN THIS SPECIAL CONDITION SHALL NOT BE CONSIDERED FULFILLED UNTIL THE PERMITTEE HAS MET OR EXCEEDED ALL FINAL PERFORMANCE STANDARDS FOR EACH IMPACT AREA AND HAS OBTAINED WRITTEN CONFIRMATION FROM THE CORPS VERIFYING SUCCESSFUL RESTORATION NOTE: IF NOT DONE PREVIOUSLY AS PART OF THE PERMIT APPLICATION EVALUATION PROCESS, THEN PRIOR TO INITIATING CONSTRUCTION IN SITES WITHIN WATERS OF THE U.S. SUBJECT TO AUTHORIZED, TEMPORARY IMPACTS, THE PERMITTEE SHALL CONDUCT A FUNCTIONAL/CONDITION ASSESSMENT TO ESTABLISH PRE-PROJECT (BASELINE) FUNCTIONS AT EACH IMPACT SITE. | Sheet 9 – 39 |
| ACOE 404 | 404-SC6 | AVOIDING NATIVE VEGETATION: AUTHORIZED MAINTENANCE AREAS SHALL FOLLOW THE PATH OF CLEARING/EXCAVATION IN THE GENERAL AREA OF PRIOR CONSTRUCTION/MAINTENANCE TO THE MAXIMUM EXTENT PRACTICABLE SO AS TO AVOID MATURE RIPARIAN HABITAT INCLUDING MULEFAT, WILLOWS, COTTONWOOD, BLUE ELDERBERRY, AND OTHER NATIVE VEGETATION. DURING VEGETATION CLEARING, THE CLEARING PATH SHALL BE CLEARLY MARKED BY STAKES AND BRIGHTLY COLORED FLAGGING MATERIAL. A BIOLOGICAL MONITOR SHALL BE PRESENT DURING ANY VEGETATION REMOVAL ACTIVITIES | Sheet 9 – 2, 3 |
| ACOE 404 | 404-SC7 | PRECONSTRUCTION PRESENCE/ABSENCE SURVEYS: IN THE PILOT CHANNEL, A QUALIFIED BIOLOGIST WITH A MINIMUM 3 YEARS OF EXPERIENCE RELEVANT TO DETECTING CLAPPER RAIL (PROJECT BIOLOGIST) SHALL CONDUCT AT LEAST ONE PRE-CONSTRUCTION PRESENCE/ABSENCE SURVEY WITHIN 72 HOURS OF THE START OF CONSTRUCTION. THE RESULTS OF THE FIRST SURVEY WILL BE PROVIDED TO THE CORPS AT LEAST 24 HOURS PRIOR TO THE START OF MAINTENANCE ACTIVITIES. THE CLAPPER RAIL BIOLOGIST SHALL IMMEDIATELY NOTIFY THE ACOE IF A CLAPPER RAIL IS DETECTED. | Sheet 10 – 2 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
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| ACOE 404 | 404-SC8 | AVOIDANCE OF THE BREEDING SEASON: ALL PROJECT ACTIVITIES WITHIN JURISDICTIONAL AREAS SHALL BE CONDUCTED BETWEEN SEPTEMBER 15 AND MARCH 15 ONLY. | Sheet 9 – 1 |
| ACOE 404 | 404-SC9 | CONTINUING MONITORING: A QUALIFIED BIOLOGICAL MONITOR THAT CAN RECOGNIZE CLAPPER RAILS AND THEIR VOCALIZATIONS SHALL BE PRESENT DURING ALL THE PROJECT MAINTENANCE ACTIVITY WITHIN THE CHANNELS, ENFORCE THE LIMITS OF MAINTENANCE AND ENSURE THAT NO HARM TO CLAPPER RAILS OCCURS. BEFORE EACH WORKDAY IN THE PILOT CHANNEL BEGINS, THE BIOLOGICAL MONITOR SHALL WALK UPSTREAM TO DOWNSTREAM ON EITHER SIDE OF THE CHANNEL TO EVALUATE IF CLAPPER RAILS HAVE ENTERED THE PROJECT<br>AREA. IF A CLAPPER RAIL IS DETECTED, THE LIMITS OF IMPACT ARE EXCEEDED, AND OR TAKE TO THE CLAPPER RAIL OCCURS, THE BIOLOGICAL MONITOR SHALL STOP WORK AND CONTACT THE CORPS/USFWS IMMEDIATELY.<br>WORK MAY NOT RESUME UNTIL APPROVED BY THE CORPS. | Sheet 10 – 7 |
| ACOE 404 | 404-SC10 | THE BIOLOGICAL MONITOR SHALL SUBMIT WEEKLY LETTER REPORTS TO THE ACOE, AND RWQCB DURING BOTH PRE-CONSTRUCTION AND START OF CONSTRUCTION SURVEYS AND DURING CHANNEL MAINTENANCE ACTIVITIES. RAW FIELD NOTES SHALL BE AVAILABLE UPON REQUEST. THE WEEKLY REPORTS SHALL INCLUDE TEXT AND PHOTOS OF THE FOLLOWING: DOCUMENT THAT AUTHORIZED IMPACTS WERE NOT EXCEEDED; OUTLINE DAILY CLAPPER RAIL SURVEY RESULTS; DESCRIBE LOCATION AND TYPE OF MAINTENANCE ACTIVITIES; AND IDENTIFY EQUIPMENT USED. | Sheet 10 – 7 |
| ACOE 404 | 404-SC11 | TEMPORARY IMPACTS TO WATERS OF THE UNITED STATES (WOUS), INCLUDING JURISDICTIONAL WETLANDS AND NON-WETLAND WATERS, SHALL BE MITIGATED THROUGH THE RESTORATION OF ALL TEMPORARY IMPACT AREAS TO PRE-CONSTRUCTION CONTOURS. ALL DISTURBED AREAS SHALL BE REVEGETATED WITH PRE-EXISTING AND/OR NATIVE WETLAND VEGETATION. | Sheet 9 – 39 |
| ACOE 404 | 404-SC12 | THE PERMITTEE SHALL SUBMIT TO THE CORPS WITHIN (60) DAYS OF COMPLETION OF WATERS/WETLANDS IMPACTS AUTHORIZED BY THIS IP A REPORT THAT WILL INCLUDE AS-BUILT CONSTRUCTION DRAWINGS WITH AN OVERLAY OF WATERS/WETLANDS THAT WERE IMPACTED AND THOSE THAT WERE PRESERVED, DATED AND LABELED PHOTOGRAPHS OF WATERS/WETLAND AREAS THAT ARE IMPACTED AND THOSE TO BE PRESERVED, AND A SUMMARY OF ALL PROJECT ACTIVITIES WHICH DOCUMENTS THAT AUTHORIZED WATERS/WETLANDS IMPACTS WERE NOT EXCEEDED, AND COMPLIANCE WITH ALL PERMIT CONDITIONS. | None |
| ACOE 404 | 404-SC14 | THE PERMITTEE SHALL REMOVE AND DISPOSE OF EXOTIC INVASIVE SPECIES IN A MANNER THAT PREVENTS THE SPREAD OF EXOTIC INVASIVE SPECIES TO OTHER AREAS. | Sheet 9 – 5 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
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| ACOE 404 | 404-ESA1 | THIS CORPS PERMIT DOES NOT AUTHORIZE YOU TO TAKE ANY THREATENED OR ENDANGERED SPECIES, IN PARTICULAR THE FEDERALLY-LISTED AS ENDANGERED LEAST BELL'S VIREO (VIREO BELLII PUSILLUS, VIREO) OR ADVERSELY MODIFY ITS DESIGNATED CRITICAL HABITAT AND THE LIGHT-FOOTED CLAPPER RAIL (RALLUS LONGIROSTRIS LEVIPES). IN ORDER TO LEGALLY TAKE A LISTED SPECIES, YOU MUST HAVE SEPARATE AUTHORIZATION UNDER THE ENDANGERED SPECIES ACT (ESA) (E.G. ESA SECTION 10 PERMIT, OR A BIOLOGICAL OPINION (BO) UNDER ESA SECTION 7, WITH "INCIDENTAL TAKE" PROVISIONS WITH WHICH YOU MUST COMPLY). THE ENCLOSED U.S. FISH AND WILDLIFE SERVICE BIOLOGICAL OPINION FWS-SDG-OBB0600-LOF00O1 (BO) CONTAINS MANDATORY TERMS AND CONDITIONS TO IMPLEMENT THE REASONABLE AND PRUDENT MEASURES THAT ARE ASSOCIATED WITH "INCIDENTAL TAKE" THAT IS ALSO SPECIFIED IN THE BO. YOUR AUTHORIZATION UNDER THIS CORPS PERMIT IS CONDITIONAL UPON YOUR COMPLIANCE WITH ALL OF THE MANDATORY TERMS AND CONDITIONS ASSOCIATED WITH INCIDENTAL TAKE OF THE BO, WHICH TERMS AND CONDITIONS ARE INCORPORATED BY REFERENCE IN THIS PERMIT. FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS ASSOCIATED WITH INCIDENTAL TAKE OF THE BO, WHERE A TAKE OF THE LISTED SPECIES OCCURS, WOULD CONSTITUTE AN UNAUTHORIZED TAKE, AND IT WOULD ALSO CONSTITUTE NON-COMPLIANCE WITH YOUR CORPS PERMIT. THE U.S. FISH AND WILDLIFE SERVICE IS THE APPROPRIATE AUTHORITY TO DETERMINE COMPLIANCE WITH THE TERMS AND CONDITIONS OF ITS BO AND WITH THE ESA. | None |
| CDFG 1600 | 1600-2.1 | NESTING BIRDS. TO PROTECT NESTING BIRDS, NO PROJECT ACTIVITIES SHALL OCCUR FROM. JANUARY 15 THROUGH SEPTEMBER 15 ANNUALLY, EXCEPT THAT PROJECT ACTIVITIES MAY OCCUR FROM JANUARY 15 THROUGH MARCH 15 IF NESTING BIRD SURVEYS ARE COMPLETED BY A QUALIFIED BIOLOGIST WITHIN ONE WEEK PRIOR TO INITIATION OF ACTIVITIES IN THAT AREA, AND NO NESTING BIRDS ARE PRESENT WITHIN A 200' RADIUS (500' FOR THREATENED AND ENDANGERED SPECIES, AND ALL RAPTORS, INCLUDING BOTH DIURNAL AND NOCTURNAL SPECIES). THIS AGREEMENT DOES NOT ALLOW THE PERMITTEE, ANY EMPLOYEES, OR AGENTS TO DESTROY OR DISTURB ANY ACTIVE BIRD NEST (SECTION 3503 FISH AND GAME CODE) OR ANY RAPTOR NEST (SECTION 3503.5) AT ANY TIME OF THE YEAR. | Sheet 9 – 1, Sheet 10 - 2 |
| CDFG 1600 | 1600-2.2 | LIGHT-FOOTED CLAPPER RAIL. FOCUSED SURVEYS FOR LIGHT-FOOTED CLAPPER RAIL SHALL BE CONDUCTED BY A QUALIFIED AVIAN BIOLOGIST (SOMEONE WITH AT LEAST THREE YEARS OF EXPERIENCE) WITHIN 72 HOURS PRIOR TO THE INITIATION OF ANNUAL MAINTENANCE ACTIVITIES. IF LIGHT-FOOTED CLAPPER RAIL ARE DETECTED (DURING FOCUSED SURVEYS OR DURING DAILY PRECONSTRUCTION SURVEYS), MAINTENANCE ACTIVITIES WITHIN THAT PORTION OF THE PROJECT SHALL HALT IMMEDIATELY AND THE PERMITTEE SHALL CONSULT WITH DFG FOR GUIDANCE ON RESUMING PROJECT ACTIVITIES IN A MANNER THAT AVOIDS POTENTIAL IMPACTS TO THAT SPECIES. | Sheet 10 - 7 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
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| CDFG 1600 | 1600-2.3 | PROTECTED SPECIES. THIS AGREEMENT DOES NOT AUTHORIZE TAKE, INCIDENTAL OR OTHERWISE, OF ANY PROTECTED SPECIES. FOR THE PURPOSE OF THIS AGREEMENT, "PROTECTED SPECIES" MEANS THE FOLLOWING: A SPECIES FULLY PROTECTED UNDER STATE LAW; A SPECIES LISTED UNDER THE CALIFORNIA ENDANGERED SPECIES ACT (FISH & G. CODE § 2050 ET SEQ.) AND/OR ENDANGERED SPECIES ACT (16 U.S.C. § 1531 ET SEQ.); A SPECIES IDENTIFIED BY DFG AS A SPECIES OF SPECIAL CONCERN; OR ANY OTHER SPECIES FOR WHICH TAKE IS PROHIBITED UNDER STATE OR FEDERAL LAW. NO DIRECT OR INDIRECT IMPACTS SHALL OCCUR TO ANY PROTECTED SPECIES, EXCEPT AS MAY BE AUTHORIZED BY A NATURAL COMMUNITY CONSERVATION PLAN OR ONE OR MORE INDIVIDUAL PERMITS THAT AUTHORIZE SUCH IMPACTS. | None |
| CDFG 1600 | 1600-2.4 | SURVEY COMPLETED BY QUALIFIED BIOLOGIST. THE PERMITTEE SHALL HAVE A QUALIFIED BIOLOGIST SURVEY THE PROPOSED WORK AREA TO VERIFY THE PRESENCE OR ABSENCE OF PROTECTED SPECIES. THE RESULTS OF THESE SURVEYS SHALL BE PROVIDED TO DFG, ALONG WITH COPIES OF ALL FIELD NOTES, PRIOR TO THE INITIATION OF WORK. THE SURVEYS SHALL BE CONDUCTED PURSUANT TO PROTOCOL SURVEY GUIDELINES ESTABLISHED BY THE UNITED STATES FISH AND WILDLIFE SERVICE (USFWS) OR, IF NO PROTOCOL EXISTS, THE SURVEY TECHNIQUE SHALL BE APPROVED BY DFG IN WRITING. THE BIOLOGIST SHALL HAVE ALL REQUIRED PERMITS. | Sheet 10 – 2, 6 |
| CDFG 1600 | 1600-2.5 | PROTECTED SPECIES PLAN. IF A PROTECTED SPECIES IS FOUND IN THE PROPOSED WORK AREA, OR IS IN A LOCATION WHICH COULD BE DIRECTLY OR INDIRECTLY AFFECTED BY THE WORK PROPOSED, THE PERMITTEE SHALL SUBMIT A PLAN TO DFG FOR REVIEW AND APPROVAL PRIOR TO THE INITIATION OF WORK TO ENSURE IMPACTS TO THE SPECIES ARE AVOIDED. THE PERMITTEE SHALL HAVE A QUALIFIED BIOLOGIST ONSITE DAILY TO ENSURE THAT NO IMPACTS OCCUR TO PROTECTED SPECIES. | Sheet 10 – 2, 6 |
| CDFG 1600 | 1600-2.6 | NOTIFICATION TO THE CALIFORNIA NATURAL DIVERSITY DATABASE. IF ANY SPECIAL STATUS SPECIES ARE OBSERVED IN PROJECT SURVEYS, PERMITTEE OR DESIGNATED REPRESENTATIVE SHALL SUBMIT NATURAL DIVERSITY DATA BASE (NDDB) FORMS TO THE NDDB FOR ALL SURVEY DATA WITHIN FIVE (5) WORKING DAYS OF THE SIGHTINGS, AND PROVIDE TO DFG'S REGIONAL OFFICE COPIES OF THE NDDB FORMS AND SURVEY MAPS. | Sheet 10 – 1 |
| CDFG 1600 | 1600-2.7 | LEAVE WILDLIFE UNHARMED. IF ANY WILDLIFE IS ENCOUNTERED DURING THE COURSE OF CONSTRUCTION, SAID WILDLIFE SHALL BE ALLOWED TO LEAVE THE CONSTRUCTION AREA UNHARMED. | Sheet 10 – 9 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
|---|---|---|---|
| CDFG 1600 | 1600-2.8 | ON-SITE BIOLOGIST WITH STOPWORK AUTHORIZATION. PERMITTEE SHALL HAVE A QUALIFIED BIOLOGIST ON SITE DAILY DURING PROJECT ACTIVITY TO ENSURE THAT AGREEMENT CONDITIONS ARE BEING MET AND MINIMIZE IMPACTS TO FISH AND WILDLIFE HABITAT. THE BIOLOGIST SHALL BE AUTHORIZED TO STOP CONSTRUCTION IF NECESSARY TO PROTECT FISH AND WILDLIFE RESOURCES. IF ANY PROTECTED SPECIES ARE FOUND THE BIOLOGIST SHALL INFORM DFG. IF THERE IS A THREAT OF HARM TO ANY PROTECTED SPECIES OR OTHER AQUATIC WILDLIFE THE BIOLOGIST SHALL HALT CONSTRUCTION AND NOTIFY DFG. CONSULTATION WITH DFG IS REQUIRED BEFORE RE-COMMENCING WORK. | Sheet 10 – 8 |
| CDFG 1600 | 1600-2.9 | DELINEATE WORK AREA. WORK AREA BOUNDARIES SHALL BE DELINEATED BY FLAGGING, ERECTING TEMPORARY FENCING, OR OTHERWISE CLEARLY MARKING TO MINIMIZE SURFACE AND VEGETATION DISTURBANCE. ALL TEMPORARY FENCING AND FLAGGING SHALL BE REMOVED AT THE CONCLUSION OF PROJECT ACTIVITIES. | Sheet 9 – 2 |
| CDFG 1600 | 1600-2.10 | VEGETATION REMOVAL. DISTURBANCE OR REMOVAL OF VEGETATION SHALL BE KEPT TO THE MINIMUM NECESSARY TO COMPLETE PROJECT RELATED ACTIVITIES. EXCEPT FOR TREES MARKED FOR REMOVAL ON PLANS SUBMITTED TO AND APPROVED BY DFG, NO NATIVE TREES WITH A TRUNK DIAMETER AT BREAST HEIGHT (DBH) IN EXCESS OF FOUR (4) INCHES SHALL BE REMOVED OR DAMAGED WITHOUT PRIOR CONSULTATION AND APPROVAL OF A DFG REPRESENTATIVE. VEGETATION MARKED FOR PROTECTION MAY ONLY BE TRIMMED WITH HAND TOOLS TO THE EXTENT NECESSARY TO GAIN ACCESS TO THE WORK SITES. | Sheet 9 – 2, Sheet 10 – 1 |
| CDFG 1600 | 1600-2.13 | SELECTIVE TRIMMING OF NATIVE SPECIES. A SMALL AMOUNT OF SELECTIVE TRIMMING OF NATIVE SPECIES (E.G., WILLOW, OAK AND SYCAMORE) MAY OCCUR TO PREVENT OVERSPRAY OF HERBICIDE FROM REACHING THESE BRANCHES, BUT ONLY AS PROVIDED WITHIN THE CONDITIONS OF THIS AGREEMENT. NATIVE VEGETATION MAY ONLY BE TRIMMED; INDIVIDUAL PLANTS SHALL NOT BE REMOVED, MATERIAL IN EXCESS OF THREE (3) INCHES IN DIAMETER SHALL REQUIRE SPECIFIC NOTICE TO AND CONSULTATION WITH DFG, IF TRIMMING IS NECESSARY, A QUALIFIED BIOLOGICAL MONITOR SHALL BE PRESENT AND/OR SHALL EXAMINE THE SITE AND MARK NATIVE VEGETATION THAT IS TO BE TRIMMED WITH FLAGGING TO ENSURE IMPACTS ARE WITHIN THE CONDITIONS OF THIS AGREEMENT | Sheet 10 – 1 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
|---|---|---|---|
| USFWS BO | BO-CM3 | THE CITY WILL STAFF A BIOLOGIST KNOWLEDGEABLE OF VIREO BIOLOGY AND ECOLOGY WHO WILL BE RESPONSIBLE FOR OVERSEEING COMPLIANCE WITH CONSERVATION MEASURES FOR THE VIREO AND ITS DESIGNATED CRITICAL HABITAT. THIS BIOLOGIST WILL BE APPROVED BY THE AGENCIES. THE CITY WILL SUBMIT THE BIOLOGIST'S NAME, ADDRESS, TELEPHONE NUMBER, AND WORK SCHEDULE ON THE PROJECT TO THE AGENCIES AT LEAST 30 DAYS PRIOR TO INITIATING PROJECT IMPACTS. THE BIOLOGIST WILL PERFORM THE FOLLOWING DUTIES:<br>A) BE ON SITE DURING WORK TO ENSURE COMPLIANCE WITH ALL CONSERVATION MEASURES;<br>B) OVERSEE INSTALLATION OF AND INSPECT THE FENCING AND EROSION CONTROL MEASURES WITHIN PROJECT FOOTPRINT A MINIMUM OF ONCE PER WEEK AND DAILY DURING ALL RAIN EVENTS TO ENSURE THAT ANY BREAKS IN THE FENCE OR EROSION CONTROL MEASURES ARE REPAIRED IMMEDIATELY;<br>C) MONITOR THE WORK AREA TO ENSURE THAT WORK ACTIVITIES DO NOT GENERATE EXCESSIVE AMOUNTS OF DUST;<br>D) TRAIN ALL CONTRACTORS AND CONSTRUCTION PERSONNEL ON THE BIOLOGICAL RESOURCES ASSOCIATED WITH THIS PROJECT AND ENSURE THAT TRAINING IS IMPLEMENTED BY CONSTRUCTION PERSONNEL. AT A MINIMUM, TRAINING WILL INCLUDE: 1) THE PURPOSE FOR RESOURCE PROTECTION; 2) A DESCRIPTION OF THE VIREO AND ITS CRITICAL HABITAT; 3) THE CONSERVATION MEASURES GIVEN IN THE BIOLOGICAL OPINION THAT SHOULD BE IMPLEMENTED DURING PROJECT CONSTRUCTION TO AVOID AND/OR MINIMIZE IMPACTS TO THE VIREO AND ITS CRITICAL HABITAT, INCLUDING STRICTLY LIMITING ACTIVITIES, VEHICLES, EQUIPMENT, AND CONSTRUCTION MATERIALS TO THE FENCED PROJECT FOOTPRINT TO AVOID SENSITIVE RESOURCE AREAS IN THE FIELD (I.E., AVOIDED AREAS DELINEATED ON MAPS OR ON THE PROJECT SITE BY FENCING); 4) ENVIRONMENTALLY RESPONSIBLE CONSTRUCTION PRACTICES IN CM-6; 5) THE PROTOCOL TO RESOLVE CONFLICTS THAT MAY ARISE AT ANY TIME DURING THE CONSTRUCTION PROCESS; 6) THE GENERAL PROVISIONS OF THE ACT, THE NEED TO ADHERE TO THE PROVISIONS OF THE ACT, AND THE PENALTIES ASSOCIATED WITH VIOLATING THE ACT;<br>E) HALT WORK, IF NECESSARY, FOR ANY PROJECT ACTIVITIES THAT ARE NOT IN COMPLIANCE WITH THE CONSERVATION MEASURES COMMITTED TO AS PART OF THE PROJECT AND SPECIFIED IN THIS BIOLOGICAL OPINION AND CONDITIONS OF THE CORPS PERMIT. THE BIOLOGIST WILL REPORT ANY NON-COMPLIANCE ISSUES TO THE AGENCIES WITHIN 24 HOURS OF ITS OCCURRENCE AND CONFER WITH THE AGENCIES TO ENSURE THE PROPER IMPLEMENTATION OF SPECIES AND HABITAT PROTECTION MEASURES | Sheet 10 – 8 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
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| | | F) SUBMIT WEEKLY COMPLIANCE REPORTS (INCLUDING PHOTOGRAPHS OF IMPACT AREAS) TO THE AGENCIES TO SHOW THAT AUTHORIZED IMPACTS WERE NOT EXCEEDED AND GENERAL COMPLIANCE WITH ALL CONSERVATION MEASURES. A SEPARATE REPORT WILL BE PREPARED AND SUBMITTED TO THE AGENCIES IMMEDIATELY IF AN IMPACT OCCURS OUTSIDE OF THE APPROVED PROJECT LIMITS;<br><br>G) SUBMIT A FINAL REPORT TO THE AGENCIES WITHIN 60 DAYS OF PROJECT COMPLETION THAT INCLUDES AS-BUILT CONSTRUCTION DRAWINGS WITH AN OVERLAY OF AREAS THAT WERE IMPACTED OR PRESERVED AND OTHER RELEVANT INFORMATION DOCUMENTING THAT AUTHORIZED IMPACTS WERE NOT EXCEEDED. THIS REPORT WILL DOCUMENT GENERAL COMPLIANCE WITH THE PROJECT AS DESCRIBED IN THIS BIOLOGICAL OPINION AND THE CONSERVATION MEASURES. | |
| USFWS BO | BO-CM4 | CHANNEL DREDGING/EXCAVATION AND OTHER PROJECT CONSTRUCTION WILL OCCUR BETWEEN SEPTEMBER 16 AND MARCH 14 TO AVOID THE VIREO NESTING SEASON. IF CHANNEL DREDGING/EXCAVATION OR OTHER PROJECT CONSTRUCTION IS NECESSARY DURING THE VIREO BREEDING SEASON, CONSTRUCTION NOISE LEVELS AT THE EDGE OF OCCUPIED VIREO NESTS WILL BE KEPT BELOW 60 DECIBEL (DBA) LEQ (MEASURES AS EQUIVALENT SOUND LEVEL) FROM 5 A.M. TO 11 A.M. DURING THE NESTING PERIOD BETWEEN MARCH 15 AND SEPTEMBER 15. FOR THE BALANCE OF THE DAY, DURING THE NESTING PERIOD, THE NOISE LEVELS WILL NOT EXCEED 60 DBA, AVERAGED OVER 1-HOUR PERIOD ON AN A WEIGHTED DBA (I.E., 1 HOUR LEQ/DBA) AT OCCUPIED VIREO NEST LOCATIONS. LARGE CONSTRUCTION EQUIPMENT WILL BE STAGED SO AS NOT TO EXCEED THE NOISE THRESHOLD IDENTIFIED ABOVE. | Sheet 9 – 1 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
|---|---|---|---|
| USFWS BO | BO-CM5 | IF CHANNEL DREDGING/EXCAVATION OR OTHER PROJECT CONSTRUCTION IS NECESSARY DURING THE VIREO BREEDING SEASON, THE APPROVED BIOLOGIST WILL ALSO PERFORM THE FOLLOWING DUTIES:<br><br>A) PERFORM A MINIMUM OF THREE FOCUSED VIREO SURVEYS ON SEPARATE DAYS TO DETERMINE THE PRESENCE OF VIREO NEST BUILDING ACTIVITIES, EGG INCUBATION ACTIVITIES, OR BROOD REARING ACTIVITIES WITHIN 500 FEET OF PROJECT CONSTRUCTION PROPOSED WITHIN THE VIREO BREEDING SEASON. THE SURVEYS WILL BEGIN A MAXIMUM OF 7 DAYS PRIOR TO PROJECT CONSTRUCTION, AND A SURVEY WILL BE CONDUCTED THE DAY IMMEDIATELY PRIOR TO THE INITIATION OF WORK. ADDITIONAL SURVEYS WILL BE DONE ONCE A WEEK DURING PROJECT CONSTRUCTION IN THE BREEDING SEASON. THESE ADDITIONAL SURVEYS MAY BE SUSPENDED AS APPROVED BY THE AGENCIES. THE CITY WILL NOTIFY THE AGENCIES AT LEAST 7 DAYS PRIOR TO THE INITIATION OF SURVEYS AND WITHIN 24 HOURS OF LOCATING ANY VIREO;<br><br>B) IF AN ACTIVE VIREO NEST IS FOUND WITHIN 500 FEET OF PROJECT CONSTRUCTION, THE BIOLOGIST WILL INFORM THE PROJECT ENGINEER AND/CONSTRUCTION MANAGER TO POSTPONE PROJECT CONSTRUCTION WITHIN 500 FEET OF THE NEST AND CONTACT THE AGENCIES TO DISCUSS: 1) THE BEST APPROACH TO AVOID/MINIMIZE IMPACTS TO NESTING BIRDS (E.G., SOUND WALLS, NOISE MONITORING); AND 2) A NEST MONITORING PROGRAM ACCEPTABLE TO THE AGENCIES. SUBSEQUENT TO THESE DISCUSSIONS, PROJECT CONSTRUCTION MAY BE INITIATED SUBJECT TO IMPLEMENTATION OF THE AGREED UPON AVOIDANCE/MINIMIZATION APPROACH AND NEST MONITORING PROGRAM. NEST MONITORING WILL OCCUR ACCORDING TO A SCHEDULE APPROVED BY THE AGENCIES. THE BIOLOGIST WILL DETERMINE WHETHER BIRD ACTIVITY IS BEING DISRUPTED. IF THE BIOLOGIST DETERMINES THAT BIRD ACTIVITY IS BEING DISRUPTED, THE CITY WILL STOP CONSTRUCTION WORK AND COORDINATE WITH THE AGENCIES TO REVIEW THE AVOIDANCE/MINIMIZATION APPROACH. UPON AGREEMENT AS TO THE NECESSARY REVISIONS TO THE AVOIDANCE/MINIMIZATION APPROACH, WORK MAY RESUME SUBJECT TO THE REVISIONS AND CONTINUED NEST MONITORING. NEST MONITORING WILL CONTINUE UNTIL FLEDGLINGS HAVE DISPERSED, AS APPROVED BY THE AGENCIES; | Sheet 10 – 1 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
|---|---|---|---|
| | | C) SUBMIT WEEKLY OBSERVATION REPORTS (INCLUDING PHOTOGRAPHS OF IMPACT AREAS) VIA REGULAR MAIL OR EMAIL TO THE AGENCIES DURING PROJECT CONSTRUCTION WITHIN 500 FEET OF AVOIDED CRITICAL HABITAT. THE WEEKLY REPORTS WILL DOCUMENT THAT AUTHORIZED IMPACTS WERE NOT EXCEEDED AND GENERAL COMPLIANCE WITH ALL CONDITIONS. THE REPORTS WILL ALSO OUTLINE THE DURATION OF VIREO MONITORING, THE LOCATION OF CONSTRUCTION ACTIVITIES, THE TYPE OF CONSTRUCTION THAT OCCURRED, AND EQUIPMENT USED. THESE REPORTS WILL SPECIFY NUMBERS, LOCATIONS, AND SEX OF VIREOS (IF PRESENT), OBSERVED VIREO BEHAVIOR (ESPECIALLY IN RELATION TO CONSTRUCTION ACTIVITIES), AND REMEDIAL MEASURES EMPLOYED TO AVOID, MINIMIZE, AND MITIGATE IMPACTS TO VIREOS. RAW FIELD NOTES SHOULD BE AVAILABLE UPON REQUEST BY THE AGENCIES; AND<br><br>D) SUBMIT A FINAL REPORT TO THE AGENCIES WITHIN 120 DAYS OF PROJECT COMPLETION THAT INCLUDES: 1) AS-BUILT CONSTRUCTION DRAWINGS WITH AN OVERLAY OF HABITAT THAT WAS IMPACTED AND AVOIDED; 2) PHOTOGRAPHS OF HABITAT AREAS THAT WERE AVOIDED; AND 3) OTHER RELEVANT SUMMARY INFORMATION DOCUMENTING THAT AUTHORIZED IMPACTS WERE NOT EXCEEDED AND THAT GENERAL COMPLIANCE WITH ALL CONDITIONS OF THIS BIOLOGICAL OPINION WAS ACHIEVED. | |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
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| USFWS BO | BO-ATT | THE PROJECT INCLUDES THE FOLLOWING CONSERVATION MEASURES THAT THE CITY HAS COMMITTED TO IMPLEMENT TO AVOID AND MINIMIZE POTENTIAL ADVERSE EFFECTS TO THE CLAPPER RAIL. IMPLEMENTATION OF THESE MEASURES WILL REDUCE IMPACTS TO CLAPPER RAIL TO AN INSIGNIFICANT LEVEL IN WHICH NO INCIDENTAL TAKE IS ANTICIPATED AND SUPPORTS THE SERVICE'S "NOT LIKELY TO ADVERSELY AFFECT" DETERMINATION IN ACCORDANCE WITH THE SECTION 7 CONSULTATION FOR THE PROPOSED ACTION.<br>1. CHANNEL DREDGING/EXCAVATION AND OTHER PROJECT CONSTRUCTION WILL OCCUR BETWEEN SEPTEMBER 16 AND MARCH 14 TO AVOID THE CLAPPER RAIL NESTING SEASON.<br>2. IMMEDIATELY AFTER EACH AREA OF THE PROJECT CONSTRUCTION FOOTPRINT IS SURVEYED BY A BIOLOGIST AS REQUIRED IN CONSERVATION MEASURE 3.B, A 3 TO 5-FOOT TALL EXCLUSIONARY FENCE WITH 2-INCH MESH OPENINGS WILL BE INSTALLED TO INHIBIT ENTRY OF CLAPPER RAILS INTO THE CONSTRUCTION FOOTPRINT AND TO ENSURE THAT IMPACT LIMITS ARE NOT EXCEEDED.<br>3. THE CITY WILL HIRE A BIOLOGIST KNOWLEDGEABLE OF CLAPPER RAIL BIOLOGY AND ECOLOGY WHO WILL BE RESPONSIBLE FOR OVERSEEING COMPLIANCE WITH CONSERVATION MEASURES FOR THE CLAPPER RAIL. THE BIOLOGIST WILL BE APPROVED BY THE AGENCIES. THE CITY WILL SUBMIT THE BIOLOGIST'S NAME, ADDRESS, TELEPHONE NUMBER, AND WORK SCHEDULE ON THE PROJECT TO THE AGENCIES AT LEAST 30 DAYS PRIOR TO INITIATING PROJECT IMPACTS. THE BIOLOGIST WILL PERFORM THE FOLLOWING DUTIES:<br>A) PERFORM A MINIMUM OF THREE FOCUSED PRE-CONSTRUCTION SURVEYS, ON SEPARATE DAYS, TO DETERMINE THE PRESENCE OF CLAPPER RAILS IN THE PROJECT IMPACT FOOTPRINT OUTSIDE THE CLAPPER RAIL BREEDING SEASON. SURVEYS WILL BEGIN A MAXIMUM OF 7 DAYS PRIOR TO PERFORMING PROJECT CONSTRUCTION AND ONE SURVEY WILL BE CONDUCTED THE DAY IMMEDIATELY PRIOR TO PERFORMING PROJECT CONSTRUCTION. THE CITY WILL NOTIFY THE AGENCIES AT LEAST 7 DAYS PRIOR TO PROJECT CONSTRUCTION TO ALLOW THE AGENCIES TO COORDINATE WITH THE BIOLOGIST ON THE SURVEYS, AND WITHIN 24 HOURS OF DETECTING ANY CLAPPER RAILS IN THE PROJECT IMPACT FOOTPRINT;<br>B) BEFORE EACH WORKDAY BEGINS, CHECK TO SEE IF CLAPPER RAILS HAVE ENTERED THE PROJECT IMPACT FOOTPRINT. THE CITY WILL NOTIFY THE AGENCIES WITHIN 24 HOURS OF DETECTING ANY CLAPPER RAILS IN THE PROJECT IMPACT FOOTPRINT;<br>C) IF ANY CLAPPER RAILS ARE FOUND WITHIN THE PROJECT IMPACT FOOTPRINT, THE BIOLOGIST WILL DIRECT CONSTRUCTION PERSONNEL TO BEGIN IN AN AREA AWAY FROM THE CLAPPER RAILS. IN ADDITION, THE BIOLOGIST WILL WALK AHEAD OF CONSTRUCTION EQUIPMENT TO FLUSH BIRDS TOWARDS CHANNEL AREAS TO BE AVOIDED. IT WILL BE THE RESPONSIBILITY OF THE BIOLOGIST TO ENSURE THAT CLAPPER RAILS WILL NOT BE INJURED OR KILLED BY PROJECT CONSTRUCTION. THE BIOLOGIST WILL ALSO RECORD THE NUMBER AND LOCATION OF CLAPPER RAILS DISTURBED BY PROJECT CONSTRUCTION; | Sheet 9 – 1, Sheet 10 – 1, 7 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
|---|---|---|---|
| | | D) BE ON SITE DURING WORK TO ENSURE COMPLIANCE WITH ALL CONSERVATION MEASURES;<br>E) OVERSEE INSTALLATION OF AND INSPECT THE EXCLUSIONARY FENCING REQUIRED BY CM-2 A MINIMUM OF ONCE PER DAY TO HELP ENSURE ANY BREAKS IN THE FENCE ARE REPAIRED IMMEDIATELY;<br>F) MONITOR THE WORK AREA TO ENSURE THAT WORK ACTIVITIES DO NOT GENERATE EXCESSIVE AMOUNTS OF DUST;<br>G) TRAIN ALL CONTRACTORS AND CONSTRUCTION PERSONNEL ON THE BIOLOGICAL RESOURCES ASSOCIATED WITH THIS PROJECT AND ENSURE THAT TRAINING IS IMPLEMENTED BY CONSTRUCTION PERSONNEL. AT A MINIMUM, TRAINING WILL INCLUDE: 1) THE PURPOSE FOR RESOURCE PROTECTION; 2) A DESCRIPTION OF THE CLAPPER RAIL AND ITS HABITAT; 3) THE CONSERVATION MEASURES THAT SHOULD BE IMPLEMENTED DURING PROJECT CONSTRUCTION TO AVOID AND/OR MINIMIZE IMPACTS TO THE CLAPPER RAIL AND ITS HABITAT, INCLUDING STRICTLY LIMITING ACTIVITIES, VEHICLES, EQUIPMENT, AND CONSTRUCTION MATERIALS TO THE FENCED PROJECT FOOTPRINT TO AVOID SENSITIVE RESOURCE AREAS IN THE FIELD (I.E., AVOIDED AREAS DELINEATED ON MAPS OR ON THE PROJECT SITE BY FENCING); 4) ENVIRONMENTALLY RESPONSIBLE CONSTRUCTION PRACTICES IN CONSERVATION MEASURE 4; 5) THE PROTOCOL TO RESOLVE CONFLICTS THAT MAY ARISE AT ANY TIME DURING THE CONSTRUCTION PROCESS; 6) THE GENERAL PROVISIONS OF THE ACT, THE NEED TO ADHERE TO THE PROVISIONS OF THE ACT, AND THE PENALTIES ASSOCIATED WITH VIOLATING THE ACT;<br>H) HALT WORK, IF NECESSARY, FOR ANY PROJECT ACTIVITIES THAT ARE NOT IN COMPLIANCE WITH THE CONSERVATION MEASURES AND CONDITIONS OF THE CORPS PERMIT. THE BIOLOGIST WILL REPORT ANY NON-COMPLIANCE ISSUES TO THE AGENCIES WITHIN 24 HOURS OF ITS OCCURRENCE AND CONFER WITH THE AGENCIES TO ENSURE THE PROPER IMPLEMENTATION OF SPECIES AND HABITAT PROTECTION MEASURES<br>I) SUBMIT WEEKLY COMPLIANCE REPORTS (INCLUDING PHOTOGRAPHS OF IMPACT AREAS) TO THE AGENCIES TO SHOW THAT AUTHORIZED IMPACTS WERE NOT EXCEEDED AND GENERAL COMPLIANCE WITH ALL CONSERVATION MEASURES. A SEPARATE REPORT WILL BE PREPARED AND SUBMITTED TO THE AGENCIES IMMEDIATELY IF AN IMPACT OCCURS OUTSIDE OF THE APPROVED PROJECT LIMITS; AND<br>J) SUBMIT A FINAL REPORT TO THE AGENCIES WITHIN 60 DAYS OF PROJECT COMPLETION THAT INCLUDES: AS-BUILT CONSTRUCTION DRAWINGS WITH AN OVERLAY OF AREAS THAT WERE IMPACTED OR PRESERVED AND OTHER RELEVANT INFORMATION DOCUMENTING THAT AUTHORIZED IMPACTS WERE NOT EXCEEDED AND THAT GENERAL COMPLIANCE WITH THE PROJECT AS DESCRIBED IN THIS BIOLOGICAL OPINION, INCLUDING THE CONSERVATION MEASURES, WAS ACHIEVED. | |
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| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
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| **HISTORICAL RESOURCE PROTECTION** | | | |
| MMP | HIST-1 | FLAG, CAP OR FENCE ALL HISTORICAL RESOURCE AREAS PRIOR TO INITIATION OF MAINTENANCE ACTIVITIES. | Sheet 10 – 10 |
| MMP | HIST-2 | CONDUCT A PRE-MAINTENANCE MEETING ON-SITE PRIOR TO ANY ACTIVITY THAT MAY OCCUR WITHIN OR ADJACENT TO SENSITIVE HISTORICAL RESOURCES. THE QUALIFIED ARCHAEOLOGIST SHALL POINT OUT SENSITIVE HISTORICAL RESOURCES TO BE AVOIDED DURING MAINTENANCE, IDENTIFY ANY SPECIFIC MEASURES WHICH SHOULD BE IMPLEMENTED TO MINIMIZE IMPACTS, AND DIRECT CREWS OR OTHER PERSONNEL TO PROTECT SENSITIVE HISTORICAL RESOURCES AS NECESSARY. | Sheet 10 – 2 |
| PEIR | HIST-4.4.3 | PRIOR TO INITIATING ANY MAINTENANCE ACTIVITY WHERE THE IHA IDENTIFIES A MODERATE TO HIGH POTENTIAL FOR THE OCCURRENCE OF SIGNIFICANT HISTORICAL RESOURCES WITHIN THE AREA OF POTENTIAL EFFECTS (APE), THE FOLLOWING ACTIONS SHALL BE TAKEN: | Sheet 10 – 11 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
|---|---|---|---|
| PEIR | HIST-4.4.3.2 | PRIOR TO START OF MAINTENANCE<br>A. VERIFICATION OF RECORDS SEARCH<br>1. THE PRINCIPAL INVESTIGATOR (PI) SHALL PROVIDE VERIFICATION TO MITIGATION MONITORING COORDINATOR (MMC) THAT A SITE SPECIFIC RECORDS SEARCH (1/4 MILE RADIUS) HAS BEEN COMPLETED. VERIFICATION INCLUDES, BUT IS NOT LIMITED TO A COPY OF A CONFIRMATION LETTER FROM SOUTH COASTAL INFORMATION CENTER, OR, IF THE SEARCH WAS IN-HOUSE, A LETTER OF VERIFICATION FROM THE PI STATING THAT THE SEARCH WAS COMPLETED.<br>2. THE LETTER SHALL INTRODUCE ANY PERTINENT INFORMATION CONCERNING EXPECTATIONS AND PROBABILITIES OF DISCOVERY DURING TRENCHING AND/OR GRADING ACTIVITIES.<br>3. THE PI MAY SUBMIT A DETAILED LETTER TO MMC REQUESTING A REDUCTION TO THE ¼ MILE RADIUS.<br><br>B. PI SHALL ATTEND PRE-MAINTENANCE MEETINGS<br>1. PRIOR TO BEGINNING ANY WORK THAT REQUIRES MONITORING; THE APPLICANT SHALL ARRANGE A PRE-MAINTENANCE MEETING THAT SHALL INCLUDE THE PI, NATIVE AMERICAN CONSULTANT/MONITOR (WHERE NATIVE AMERICAN RESOURCES MAY BE IMPACTED), MAINTENANCE MANAGER (MM) AND/OR GRADING CONTRACTOR, RESIDENT ENGINEER (RE), BUILDING INSPECTOR (BI), IF APPROPRIATE, AND MMC. THE QUALIFIED ARCHAEOLOGIST AND NATIVE AMERICAN MONITOR SHALL ATTEND ANY GRADING/EXCAVATION RELATED PREMAINTENANCE<br>MEETINGS TO MAKE COMMENTS AND/OR SUGGESTIONS CONCERNING THE ARCHAEOLOGICAL MONITORING PROGRAM WITH THE MAINTENANCE MANAGER AND/OR GRADING CONTRACTOR.<br>A. IF THE PI IS UNABLE TO ATTEND THE PRE-MAINTENANCE MEETING, THE APPLICANT SHALL SCHEDULE A FOCUSED PRE-MAINTENANCE MEETING WITH MMC, THE PI, RE, MM OR BI, IF APPROPRIATE, PRIOR TO THE START OF ANY WORK THAT REQUIRES MONITORING.<br>2. ACKNOWLEDGEMENT OF RESPONSIBILITY FOR CURATION (CIP OR OTHER PUBLIC PROJECTS)<br>THE APPLICANT SHALL SUBMIT A LETTER TO MMC ACKNOWLEDGING THEIR RESPONSIBILITY FOR THE COST OF CURATION ASSOCIATED WITH ALL PHASES OF THE ARCHAEOLOGICAL MONITORING PROGRAM. | Sheet 10 – 1, 2 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
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| | | 3. IDENTIFY AREAS TO BE MONITORED<br>PRIOR TO THE START OF ANY WORK THAT REQUIRES MONITORING, THE PI SHALL SUBMIT AN ARCHAEOLOGICAL MONITORING EXHIBIT (AME) (WITH VERIFICATION THAT THE AME HAS BEEN REVIEWED AND APPROVED BY THE NATIVE AMERICAN CONSULTANT/MONITOR WHEN NATIVE AMERICAN RESOURCES MAY BE IMPACTED) BASED ON THE APPROPRIATE<br>MAINTENANCE DOCUMENTS (REDUCED TO 11X17) TO MMC IDENTIFYING THE AREAS TO BE MONITORED INCLUDING THE DELINEATION OF GRADING/EXCAVATION LIMITS. THE AME SHALL BE BASED ON THE RESULTS OF A SITE SPECIFIC RECORDS SEARCH AS WELL AS INFORMATION REGARDING THE AGE OF EXISTING PIPELINES, LATERALS AND ASSOCIATED<br>APPURTENANCES AND/OR ANY KNOWN SOIL CONDITIONS (NATIVE OR FORMATION). MMC SHALL NOTIFY THE PI THAT THE AME HAS BEEN APPROVED.<br>4. WHEN MONITORING WILL OCCUR<br>A. PRIOR TO THE START OF ANY WORK, THE PI SHALL ALSO SUBMIT A MAINTENANCE SCHEDULE TO MMC THROUGH THE RE INDICATING WHEN AND WHERE MONITORING WILL OCCUR.<br>B. THE PI MAY SUBMIT A DETAILED LETTER TO MMC PRIOR TO THE START OF WORK OR DURING MAINTENANCE REQUESTING A MODIFICATION TO THE MONITORING PROGRAM. THIS REQUEST SHALL BE BASED ON RELEVANT INFORMATION SUCH AS REVIEW OF FINAL MAINTENANCE DOCUMENTS WHICH INDICATE CONDITIONS SUCH AS AGE OF EXISTING PIPE TO BE REPLACED, DEPTH OF EXCAVATION AND/OR SITE GRADED TO BEDROCK, ETC., WHICH MAY REDUCE OR INCREASE THE POTENTIAL FOR RESOURCES TO BE PRESENT.<br>5. APPROVAL OF AME AND MAINTENANCE SCHEDULE<br>AFTER APPROVAL OF THE AME BY MMC, THE PI SHALL SUBMIT TO MMC WRITTEN AUTHORIZATION OF THE AME AND MAINTENANCE SCHEDULE FROM THE MM. | |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
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| PEIR | HIST-4.4.3.3 | DURING MAINTENANCE<br>A. MONITOR SHALL BE PRESENT DURING GRADING/EXCAVATION/TRENCHING<br>1. THE ARCHAEOLOGICAL MONITOR SHALL BE PRESENT FULL-TIME DURING ALL SOIL DISTURBING AND GRADING/EXCAVATION/TRENCHING ACTIVITIES WHICH COULD RESULT IN IMPACTS TO ARCHAEOLOGICAL RESOURCES AS IDENTIFIED ON THE AME. THE MAINTENANCE MANAGER IS RESPONSIBLE FOR NOTIFYING THE RE, PI, AND MMC OF CHANGES TO ANY MAINTENANCE ACTIVITIES SUCH AS IN THE CASE OF A POTENTIAL SAFETY CONCERN WITHIN THE AREA BEING MONITORED. IN CERTAIN CIRCUMSTANCES OSHA SAFETY REQUIREMENTS MAY NECESSITATE MODIFICATION OF THE AME.<br>2. THE NATIVE AMERICAN CONSULTANT/MONITOR SHALL DETERMINE THE EXTENT OF THEIR PRESENCE DURING SOIL DISTURBING AND GRADING/EXCAVATION/TRENCHING ACTIVITIES BASED ON THE AME AND PROVIDE THAT INFORMATION TO THE PI AND MMC. IF PREHISTORIC RESOURCES ARE ENCOUNTERED DURING THE NATIVE AMERICAN CONSULTANT/MONITOR'S ABSENCE, WORK SHALL STOP AND THE DISCOVERY NOTIFICATION PROCESS DETAILED IN SECTIONS 4.4.3.3.B-C AND 4.4.3.4-A-D (BELOW) SHALL COMMENCE.<br>3. THE PI MAY SUBMIT A DETAILED LETTER TO MMC DURING MAINTENANCE REQUESTING A MODIFICATION TO THE MONITORING PROGRAM WHEN A FIELD CONDITION SUCH AS MODERN DISTURBANCE POST-DATING THE PREVIOUS GRADING/TRENCHING ACTIVITIES, PRESENCE OF FOSSIL FORMATIONS, OR WHEN NATIVE SOILS ARE ENCOUNTERED THAT MAY REDUCE OR INCREASE THE POTENTIAL FOR RESOURCES TO BE PRESENT.<br>4. THE ARCHAEOLOGICAL AND NATIVE AMERICAN CONSULTANT/MONITOR SHALL DOCUMENT FIELD ACTIVITY VIA THE CONSULTANT SITE VISIT RECORD (CSVR). THE CSVR'S SHALL BE FAXED BY THE MM TO THE RE THE FIRST DAY OF MONITORING, THE LAST DAY OF MONITORING, MONTHLY (NOTIFICATION OF MONITORING COMPLETION), AND IN THE CASE OF ANY DISCOVERIES. THE RE SHALL FORWARD COPIES TO MMC.<br>B. DISCOVERY NOTIFICATION PROCESS<br>1. IN THE EVENT OF A DISCOVERY, THE ARCHAEOLOGICAL MONITOR SHALL DIRECT THE CONTRACTOR TO TEMPORARILY DIVERT ALL SOIL DISTURBING ACTIVITIES, INCLUDING BUT NOT LIMITED TO DIGGING, TRENCHING, EXCAVATING OR GRADING ACTIVITIES IN THE AREA OF DISCOVERY AND IN THE AREA REASONABLY SUSPECTED TO OVERLAY ADJACENT RESOURCES AND IMMEDIATELY NOTIFY THE RE OR BI, AS APPROPRIATE.<br>2. THE MONITOR SHALL IMMEDIATELY NOTIFY THE PI (UNLESS MONITOR IS THE PI) OF THE DISCOVERY. | Sheet 10 – 1 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
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| | | 3. THE PI SHALL IMMEDIATELY NOTIFY MMC BY PHONE OF THE DISCOVERY, AND SHALL ALSO SUBMIT WRITTEN DOCUMENTATION TO MMC WITHIN 24 HOURS BY FAX OR EMAIL WITH PHOTOS OF THE RESOURCE IN CONTEXT, IF POSSIBLE.<br>4. NO SOIL SHALL BE EXPORTED OFF-SITE UNTIL A DETERMINATION CAN BE MADE REGARDING THE SIGNIFICANCE OF THE RESOURCE SPECIFICALLY IF NATIVE AMERICAN RESOURCES ARE ENCOUNTERED.<br>C. DETERMINATION OF SIGNIFICANCE<br>1. THE PI AND NATIVE AMERICAN CONSULTANT/MONITOR, WHERE NATIVE AMERICAN RESOURCES ARE DISCOVERED SHALL EVALUATE THE SIGNIFICANCE OF THE RESOURCE. IF HUMAN REMAINS ARE INVOLVED, FOLLOW PROTOCOL IN SECTION 4.4.3.4 BELOW.<br>A. THE PI SHALL IMMEDIATELY NOTIFY MMC BY PHONE TO DISCUSS SIGNIFICANCE DETERMINATION AND SHALL ALSO SUBMIT A LETTER TO MMC INDICATING WHETHER ADDITIONAL MITIGATION IS REQUIRED.<br>B. IF THE RESOURCE IS SIGNIFICANT, THE PI SHALL SUBMIT AN ARCHAEOLOGICAL DATA RECOVERY PROGRAM (ADRP) AND OBTAIN WRITTEN APPROVAL OF THE PROGRAM FROM MMC, MM AND RE. ADRP AND ANY MITIGATION MUST BE APPROVED BY MMC, RE AND/OR MM BEFORE GROUND DISTURBING ACTIVITIES IN THE AREA OF DISCOVERY<br>WILL BE ALLOWED TO RESUME. NOTE: IF A UNIQUE ARCHAEOLOGICAL SITE IS ALSO AN HISTORICAL RESOURCE AS DEFINED IN CEQA SECTION 15064.5, THEN THE LIMITS ON THE AMOUNT(S) THAT A PROJECT APPLICANT MAY BE REQUIRED TO PAY TO COVER MITIGATION COSTS AS INDICATED IN CEQA SECTION 21083.2 SHALL NOT APPLY.<br>(1). NOTE: FOR PIPELINE TRENCHING AND OTHER LINEAR PROJECTS IN THE PUBLIC RIGHTOF- WAY, THE PI SHALL IMPLEMENT THE DISCOVERY PROCESS FOR PIPELINE TRENCHING PROJECTS IDENTIFIED BELOW UNDER "D."<br>C. IF THE RESOURCE IS NOT SIGNIFICANT, THE PI SHALL SUBMIT A LETTER TO MMC INDICATING THAT ARTIFACTS WILL BE COLLECTED, CURATED, AND DOCUMENTED IN THE FINAL MONITORING REPORT. THE LETTER SHALL ALSO INDICATE THAT NO FURTHER WORK IS REQUIRED.<br>(1). NOTE: FOR PIPELINE TRENCHING AND OTHER LINEAR PROJECTS IN THE PUBLIC RIGHTOF- WAY, IF THE DEPOSIT IS LIMITED IN SIZE, BOTH IN LENGTH AND DEPTH; THEINFORMATION VALUE IS LIMITED AND IS NOT ASSOCIATED WITH ANY OTHER RESOURCE; AND THERE ARE NO UNIQUE FEATURES/ARTIFACTS ASSOCIATED WITH THE DEPOSIT, THE DISCOVERY SHOULD BE CONSIDERED NOT SIGNIFICANT.<br>(2). NOTE, FOR PIPELINE TRENCHING AND OTHER LINEAR PROJECTS IN THE PUBLIC RIGHTOF-WAY, IF SIGNIFICANCE CANNOT BE DETERMINED, THE FINAL MONITORING REPORT AND SITE RECORD (DPR FORM 523A/B) SHALL IDENTIFY THE DISCOVERY AS POTENTIALLY SIGNIFICANT. | |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
|---|---|---|---|
| | | D. DISCOVERY PROCESS FOR SIGNIFICANT RESOURCES - PIPELINE TRENCHING AND OTHER LINEAR PROJECTS IN THE PUBLIC RIGHT-OF-WAY<br>THE FOLLOWING PROCEDURE CONSTITUTES ADEQUATE MITIGATION OF A SIGNIFICANT DISCOVERY ENCOUNTERED DURING PIPELINE TRENCHING ACTIVITIES OR FOR OTHER LINEAR PROJECT TYPES WITHIN THE PUBLIC RIGHT-OF-WAY INCLUDING BUT NOT LIMITED TO EXCAVATION FOR JACKING PITS, RECEIVING PITS, LATERALS, AND MANHOLES TO REDUCE IMPACTS TO BELOW A LEVEL OF SIGNIFICANCE:<br>1. PROCEDURES FOR DOCUMENTATION, CURATION AND REPORTING<br>A. ONE HUNDRED PERCENT OF THE ARTIFACTS WITHIN THE TRENCH ALIGNMENT AND WIDTH SHALL BE DOCUMENTED IN-SITU, TO INCLUDE PHOTOGRAPHIC RECORDS, PLAN VIEW OF THE TRENCH AND PROFILES OF SIDE WALLS, RECOVERED, PHOTOGRAPHED AFTER CLEANING AND ANALYZED AND CURATED. THE REMAINDER OF THE DEPOSIT WITHIN THE LIMITS OF EXCAVATION (TRENCH WALLS) SHALL BE LEFT INTACT.<br>B. THE PI SHALL PREPARE A DRAFT MONITORING REPORT AND SUBMIT TO MMC VIA THE RE AS INDICATED IN SECTION 4.4.3.6-A.<br>C. THE PI SHALL BE RESPONSIBLE FOR RECORDING (ON THE APPROPRIATE STATE OF CALIFORNIA DEPARTMENT OF PARK AND RECREATION FORMS-DPR 523 A/B) THE RESOURCE(S) ENCOUNTERED DURING THE ARCHAEOLOGICAL MONITORING PROGRAM IN ACCORDANCE WITH THE CITY'S HISTORICAL RESOURCES GUIDELINES. THE DPR FORMS SHALL BE SUBMITTED TO THE SOUTH COASTAL INFORMATION CENTER FOR EITHER A<br>PRIMARY RECORD OR SDI NUMBER AND INCLUDED IN THE FINAL MONITORING REPORT.<br>D. THE FINAL MONITORING REPORT SHALL INCLUDE A RECOMMENDATION FOR MONITORING OF ANY FUTURE WORK IN THE VICINITY OF THE RESOURCE. | |
| PEIR | HIST-4.4.3.4 | DISCOVERY OF HUMAN REMAINS<br>IF HUMAN REMAINS ARE DISCOVERED, WORK SHALL HALT IN THAT AREA AND NO SOIL SHALL BE EXPORTED OFF-SITE UNTIL A DETERMINATION CAN BE MADE REGARDING THE PROVENANCE OF THE HUMAN REMAINS; AND THE FOLLOWING PROCEDURES AS SET FORTH IN CEQA SECTION 15064.5(E), THE CALIFORNIA PUBLIC RESOURCES CODE (SEC. 5097.98) AND STATE HEALTH AND SAFETY CODE (SEC. 7050.5) SHALL BE UNDERTAKEN: (REFER TO INDIVIDUAL HISTORICAL ASSESSMENT REPORT- PEIR MITIGATION MEASURES) | Sheet 10 – 12 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
|---|---|---|---|
| PEIR | HIST-4.4.3.5 | NIGHT AND/OR WEEKEND WORK<br>A. IF NIGHT AND/OR WEEKEND WORK IS INCLUDED IN THE CONTRACT<br>1. WHEN NIGHT AND/OR WEEKEND WORK IS INCLUDED IN THE CONTRACT PACKAGE, THE EXTENT AND TIMING SHALL BE PRESENTED AND DISCUSSED AT THE PRE-MAINTENANCE MEETING.<br>2. THE FOLLOWING PROCEDURES SHALL BE FOLLOWED.<br>A. NO DISCOVERIES<br>IN THE EVENT THAT NO DISCOVERIES WERE ENCOUNTERED DURING NIGHT AND/OR WEEKEND WORK, THE PI SHALL RECORD THE INFORMATION ON THE CSVR AND SUBMIT TO MMC VIA FAX BY 8AM OF THE NEXT BUSINESS DAY.<br>B. DISCOVERIES<br>ALL DISCOVERIES SHALL BE PROCESSED AND DOCUMENTED USING THE EXISTING PROCEDURES DETAILED IN SECTIONS 4.4.3.3 - DURING MAINTENANCE, AND 4.4.3.4 –DISCOVERY OF HUMAN REMAINS. DISCOVERY OF HUMAN REMAINS SHALL ALWAYS BE<br>TREATED AS A SIGNIFICANT DISCOVERY.<br>C. POTENTIALLY SIGNIFICANT DISCOVERIES<br>IF THE PI DETERMINES THAT A POTENTIALLY SIGNIFICANT DISCOVERY HAS BEEN MADE, THE PROCEDURES DETAILED UNDER SECTIONS 4.4.3.3 DURING MAINTENANCE AND 4.4.3.4- DISCOVERY OF HUMAN REMAINS SHALL BE FOLLOWED.<br>D. THE PI SHALL IMMEDIATELY CONTACT THE RE AND MMC, OR BY 8AM OF THE NEXT BUSINESS DAY TO REPORT AND DISCUSS THE FINDINGS AS INDICATED IN SECTION 4.4.3.3- B, UNLESS OTHER SPECIFIC ARRANGEMENTS HAVE BEEN MADE.<br>B. IF NIGHT AND/OR WEEKEND WORK BECOMES NECESSARY DURING THE COURSE OF MAINTENANCE<br>1. THE MAINTENANCE MANAGER SHALL NOTIFY THE RE, OR BI, AS APPROPRIATE, A MINIMUM OF 24 HOURS BEFORE THE WORK IS TO BEGIN.<br>2. THE RE, OR BI, AS APPROPRIATE, SHALL NOTIFY MMC IMMEDIATELY.<br>C. ALL OTHER PROCEDURES DESCRIBED ABOVE SHALL APPLY, AS APPROPRIATE. | Sheet 10 – 2 |
| ACOE 404 | 404-GEN3 | IF YOU DISCOVER ANY PREVIOUSLY UNKNOWN HISTORIC OR ARCHEOLOGICAL REMAINS WHILE ACCOMPLISHING THE ACTIVITY AUTHORIZED BY THIS PERMIT, YOU MUST IMMEDIATELY NOTIFY THIS OFFICE OF WHAT YOU HAVE FOUND. WE WILL INITIATE THE FEDERAL AND STATE COORDINATION REQUIRED TO DETERMINE IF THE REMAINS WARRANT A RECOVERY EFFORT OR IF THE SITE IS ELIGIBLE FOR LISTING IN THE NATIONAL REGISTER OF HISTORIC PLACES. | Sheet 10 – 1 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
|---|---|---|---|
| ACOE 404 | 404-CULT1 | PURSUANT TO 36 C.F.R. SECTION 800.13, IN THE EVENT OF ANY DISCOVERIES DURING CONSTRUCTION OF EITHER HUMAN REMAINS, ARCHEOLOGICAL DEPOSITS, OR ANY OTHER TYPE OF HISTORIC PROPERTY, THE PERMITTEE SHALL NOTIFY THE CORPS' ARCHEOLOGY STAFF WITHIN 24 HOURS (STEVE DIBBLE AT 213-452-3849 OR JOHN KILLEEN AT 213-452-3861). THE PERMITTEE SHALL IMMEDIATELY SUSPEND ALL WORK IN ANY AREA(S) WHERE POTENTIAL CULTURAL RESOURCES ARE DISCOVERED. THE PERMITTEE SHALL NOT RESUME CONSTRUCTION IN THE AREA SURROUNDING THE POTENTIAL CULTURAL RESOURCES UNTIL THE CORPS REGULATORY DIVISION RE-AUTHORIZES PROJECT CONSTRUCTION, PER 36 C.F.R. SECTION 800.13. | Sheet 10 – 12 |
| | | | |
| **WASTE MANAGEMENT** | | | |
| MMP | WM-1 | DISPOSE AND TRANSPORT COMPOSTABLE GREEN WASTE MATERIAL TO AN APPROVED COMPOSTING FACILITY, IF AVAILABLE. | Sheet 9 – 17 |
| MMP | WM-2 | REUSE EXCAVATED MATERIAL, WHENEVER POSSIBLE, AS FILL MATERIAL, AGGREGATE, SAND REPLENISHMENT OR OTHER RAW MATERIAL USES. RE-USED MATERIAL (AGGREGATES, SOIL, SAND, OR SILT) SHALL BE DOCUMENTED IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. | Sheet 9 – 21 |
| MMP | WM-3 | SEPARATE WASTE TIRES FROM EXCAVATED MATERIAL AND TRANSPORT THEM TO AN APPROPRIATE DISPOSAL FACILITY. IF MORE THAN NINE TIRES ARE IN A VEHICLE OR WASTE BIN AT ANY ONE TIME, THEY SHALL BE TRANSPORTED UNDER A COMPLETED COMPREHENSIVE TRIP LOG (CTL) TO DOCUMENT THAT THE TIRES WERE TAKEN TO AN APPROPRIATE DISPOSAL FACILITY. | Sheet 9 – 19, 20 |
| MMP | WM-4 | LOG AND TRANSPORT ANY HAZARDOUS MATERIALS ENCOUNTERED DURING MAINTENANCE UNDER A HAZARDOUS MATERIALS MANIFEST TO AN APPROVED HAZARDOUS WASTE STORAGE, RECYCLING, TREATMENT OR DISPOSAL FACILITY. PERSONNEL HANDLING HAZARDOUS MATERIALS SHALL HAVE THE APPROPRIATE TRAINING TO HANDLE, STORE, TRANSPORT AND/OR DISPOSE. HAZARDOUS MATERIALS (E.G., MACHINE OIL, MERCURY SWITCHES AND REFRIGERANT GASES) SHALL BE REMOVED FROM APPLIANCES AND DISPOSED IN ACCORDANCE WITH THIS PROTOCOL. | Sheet 9 - 22 |
| CDP-SPECIAL CONDITIONS | CDP-6I | FUELS, LUBRICANTS, AND SOLVENTS SHALL NOT BE ALLOWED TO ENTER THE COASTAL WATERS OR WETLANDS. HAZARDOUS MATERIALS MANAGEMENT EQUIPMENT INCLUDING OIL CONTAINMENT BOOMS AND ABSORBENT PADS SHALL BE AVAILABLE IMMEDIATELY ON-HAND AT THE PROJECT SITE, AND A REGISTERED FIRST-RESPONSE, PROFESSIONAL HAZARDOUS MATERIALS CLEAN-UP/REMEDIATION SERVICE SHALL BE LOCALLY AVAILABLE ON CALL. ANY ACCIDENTAL SPILL SHALL BE IMMEDIATELY, UPON DISCOVERY, CONTAINED AND CLEANED UP CONSISTENT WITH RELEVANT STATE AND/OR FEDERAL REGULATIONS. | Sheet 9 – 22, 31 |
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| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
|---|---|---|---|
| **LAND USE POLICY PROTECTION** | | | |
| PEIR | LU-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. | Sheet 10 – 1 |
| PEIR | LU-4.1.4 | BASED ON THE LOCATION OF THE 60 DB(A) LEQ 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.<br>• COASTAL CALIFORNIA GNATCATCHER (BETWEEN MARCH 1 AND AUGUST 15 INSIDE THE MHPA ONLY; NO RESTRICTIONS OUTSIDE MHPA);<br>• LEAST BELL'S VIREO (BETWEEN MARCH 15 AND SEPTEMBER 15); AND<br>• SOUTHWESTERN WILLOW FLYCATCHER (BETWEEN MAY 1 AND SEPTEMBER 1). | Sheet 10 – 1 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
|---|---|---|---|
| PEIR | LU-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:<br>• 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 THEQUALIFIED 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.<br>• 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.<br>• 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.<br>• 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. | Sheet 10 – 1 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
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| PEIR | LU-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 PREMAINTENANCE MEETING, THE FOLLOWING SHALL BE COMPLETED:<br>• 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 TIMELINES, 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.<br>• 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. | Sheet 10 – 2 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
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| PEIR | LU-4.1.7 | MAINTENANCE PLANS SHALL BE DESIGNED TO ACCOMPLISH THE FOLLOWING.<br>• 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.<br>• 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.<br>• 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.<br>• 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.<br>• 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. | All |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
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| PEIR | LU-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:<br>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:<br>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 BREEDINGSEASON PRIOR TO THE COMMENCEMENT OF ANY MAINTENANCE. IF GNATCATCHERS ARE PRESENT, THEN THE FOLLOWING<br>CONDITIONS MUST BE MET:<br>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<br>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<br>SHALL BE STAKED OR FENCED UNDER THE SUPERVISION OF A QUALIFIED BIOLOGIST; OR | Sheet 10 – 1, 2 |

| SOURCE | BMP ID | DESCRIPTION | PLAN NOTE |
|---|---|---|---|
| | | 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).<br>* 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.<br>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:<br>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.<br>2. IF THIS EVIDENCE CONCLUDES THAT NO IMPACTS TO THIS SPECIES ARE ANTICIPATED, NO MITIGATION MEASURES WOULD BE NECESSARY. | |

## Tijuana River Pilot Channel & Smuggler's Gulch Channel (2017 SCR)

## Attachment 1d – IMP Maintenance Methodology

| **FACILITY/CHANNEL** | SMUGGLER'S GULCH (SG) | TIJUANA RIVER PILOT (PILOT) |
|---|---|---|
| **DIMENSIONS** | 3040 FEET (LENGTH)<br>20 FEET (WIDTH)<br>15 FEET (DEPTH[1]) (APPROXIMATE)<br>[1]DEPTH MEASURED FROM BERM TOP | 5400 FEET (LENGTH)<br>23 FEET (WIDTH)<br>5-7 FEET (DEPTH) (APPROXIMATE) |
| **MAINTENANCE METHOD** | MECHANIZED SEDIMENT AND VEGETATION REMOVAL<br>PRE-MAINTENANCE AND AS-NEEDED PUMPING OF PONDED WATER WITHIN THE CHANNEL AREA | |
| **EQUIPMENT**<br>(EQUIPMENT WILL BE EQUIVALENT OR SMALLER IN SIZE/TYPE) | • BULLDOZER (D9 CAT, D6 CAT, D65 KOMATSU)<br>• EXCAVATORS (50 D JOHN DEER, 349 CAT, 330 65' REACH/320 CAT)<br>• FRONT-END LOADERS (950/966 CAT, KOMATSU WA 380)<br>• BACKHOE (410 JOHN DEER)<br>• DITCH WITCH TRENCHER | • SKID STEER (BOBCAT 553)<br>• ROCK TRUCKS (740/725 CAT)<br>• DUMP TRUCKS (10/12 YD)<br>• WATER TRUCK (4,000 GL)<br>• VACTOR (SUPER VAC)<br>• FUEL TRUCK (1,200 GL)<br>• PUMPS (CRITICALLY SILENCED) |
| **MAINTENANCE PROCEDURE** | | |
| PRECONSTRUCTION MEETING | CONDUCT PRE-MAINTENANCE MEETING ON-SITE PRIOR TO THE START OF ANY MAINTENANCE ACTIVITY THAT OCCURS WITHIN OR ADJACENT TO SENSITIVE BIOLOGICAL/HISTORICAL/WATER QUALITY RESOURCES. THE PRE-MAINTENANCE MEETING SHALL INCLUDE THE QUALIFIED BIOLOGIST, WATER QUALITY SPECIALIST, CITY SWD, MAINTENANCE MANAGER (MM), MITIGATION MONITORING COORDINATOR (MMC), AND MAINTENANCE CONTRACTOR (MC), RESIDENT ENGINEER (RE), FIELD ENGINEER/PLANNER, EQUIPMENT OPERATORS/SUPERINTENDENT AND ANY OTHER KEY PERSONNEL CONDUCTING OR INVOLVED WITH THE CHANNEL MAINTENANCE ACTIVITIES. THE QUALIFIED SPECIALIST SHALL:<br>• POINT OUT OR IDENTIFY SENSITIVE BIOLOGICAL/HISTORICAL/WATER QUALITY RESOURCES TO BE AVOIDED DURING MAINTENANCE;<br>• FLAG/DELINEATE SENSITIVE RESOURCES TO BE AVOIDED;<br>• REVIEW SPECIFIC MEASURES TO BE IMPLEMENTED TO MINIMIZE DIRECT/INDIRECT IMPACTS; AND<br>• DIRECT CREWS OR OTHER PERSONNEL TO PROTECT SENSITIVE RESOURCES AS NECESSARY. | |
| TRAINING | CONDUCT TRAINING FOR PERSONNEL RESPONSIBLE FOR THE PROPER INSTALLATION, INSPECTION, AND MAINTENANCE OF ON-SITE BMPS. | |

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| (POTENTIAL) PRE-MAINTENANCE AND (POTENTIAL) DURING-MAINTENANCE PUMPING | IF NEEDED, COORDINATE WITH QUALIFIED BIOLOGIST TO DETERMINE LEAST-SENSITIVE PUMP INSTALLATION LOCATIONS. ENSURE NOISE ATTENUATION, IF NEEDED, BETWEEN THE PUMP AND SENSITIVE BIOLOGICAL RESOURCES.<br><br>IF NEEDED, INSTALL CRITICALLY-SILENCED PUMP ADJACENT TO PONDED WATER PRESENT IN EASTERN PORTION OF PILOT CHANNEL. PUMP PONDED WATER WESTWARD THROUGH TEMPORARY HOSE(S) TO LOCATION(S) DOWNSTREAM AND AT THE WESTERN LIMIT OF THE PROJECT. DISCHARGE PUMPED WATER WITHIN CHANNEL ALLOWING FOR DISTRIBUTED DISCHARGE AND INFILTRATION.<br><br>IF NEEDED, CONTINUE PUMPING ACTIVITIES DURING MAINTENANCE TO TRANSPORT PONDED WATER FROM WORK AREA TO DOWNSTREAM PORTION OF PILOT CHANNEL. |
| BMP INSTALLATION | INSTALL SEDIMENT/EROSION CONTROL BMPS (E.G. SHAKER PLATES, VISQUEEN, SILT/CONSTRUCTION FENCING, FIBER ROLLS) AT STOCKPILE/STAGING AREAS B ACCORDING TO PROJECT WATER POLLUTION CONTROL PLAN (WPCP). THE SAME WILL APPLY TO STAGING AREA D, IF UTILIZED. |
| | INSTALL CONSTRUCTION ENTRANCE/EXIT AT STAGING AREA B. THE SAME WILL APPLY TO STAGING AREA D, IF UTILIZED. |
| | INSTALL SEDIMENT/EROSION CONTROL ALONG ACCESS ROUTES ACCORDING TO WPCP. |
| | MOBILIZE EQUIPMENT AT STAGING AREAS B. THE SAME WILL APPLY TO STAGING AREA D, IF UTILIZED. |
| | REMOVE VEGETATION FROM AND REINFORCE TEMPORARY ACCESS RAMP AT SG CHANNEL, AS NECESSARY. |
| BIOLOGY | BIOLOGIST SHALL REVIEW THE PROPOSED EROSION CONTROL METHODS TO CONFIRM THAT THEY POSE NO RISK TO WILDLIFE (E.G., NON-BIODEGRADABLE BLANKETS WHICH MAY ENTANGLE WILDLIFE). |
| | BEFORE EACH WORKDAY, QUALIFIED BIOLOGIST MUST SURVEY THE PROJECT FOOTPRINT TO CHECK FOR CLAPPER RAILS. |
| | INSTALL 3 TO 5-FOOT TALL EXCLUSIONARY FENCE WITH 2-INCH MESH OPENINGS (E.G. SNOW FENCE) TO PROHIBIT CLAPPER RAILS. |
| | DUE TO POTENTIAL FOR POLYPHAGOUS SHOT HOLE BORER (PSHB) INFESTATION, PLANT MATERIAL CUT FOR REMOVAL SHALL BE CHIPPED, STOCKPILED ONSITE, AND SOLARIZED FOR 4-6 MONTHS. ALL TOOLS AND EQUIPMENT SHALL BE STERILIZED BEFORE LEAVING THE SITE WITH 5% BLEACH SOLUTION, 70% ETHANOL, OR LYSOL DISINFECTANT SPRAY. |
| ACCESS | EQUIPMENT ENTERS CHANNELS VIA TEMPORARY ACCESS RAMP AND EXISTING ACCESS ROADS AND TRAILS (SEE SHEET 1 OF THE CONSTRUCTION PLANS). |

## Tijuana River Pilot Channel & Smuggler's Gulch Channel (2017 SCR)

## Attachment 1d – IMP Maintenance Methodology

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| METHODOLOGY | <u>SG NORTH OF DISNEY BRIDGE AND PILOT CHANNEL WEST OF HOLLISTER BRIDGE:</u><br>1. EQUIPMENT ENTERS SG AT TEMPORARY ACCESS RAMP NORTH OF DISNEY BRIDGE<br>2. BULLDOZER (D9) PUSHES MATERIAL TO A CENTRAL LOCATION IN CHANNEL<br>3. EXCAVATOR STATIONED AT CENTRAL LOCATION SCOOPS ACCUMULATED MATERIAL AND LOADS INTO ROCK TRUCK<br>4. ROCK TRUCK (USING DESIGNATED TURNAROUNDS AND ACCESS ROADS/RAMP) HAULS MATERIAL TO STAGING AREA B<br><u>CULVERTS UNDER DISNEY BRIDGE:</u><br>1. SKID-STEER (BOBCAT) ENTERS SG AT TEMPORARY ACCESS RAMP<br>2. SKID-STEER PUSHES MATERIAL IN CULVERTS TO EXCAVATOR STATIONED AT ACCESS RAMP<br>3. EXCAVATOR LOADS ROCK TRUCK/DUMP TRUCK<br>4. ROCK/DUMP TRUCK HAULS MATERIAL TO STAGING AREA B |
| | <u>SG SOUTH OF DISNEY BRIDGE/NORTH OF MONUMENT:</u><br>1. BULLDOZER ENTERS CHANNEL FROM DESIGNATED ACCESS POINT ALONG ACCESS ROUTE<br>2. BULLDOZER PUSHES MATERIAL TO CENTRAL LOCATION<br>3. EXCAVATOR STATIONED ON ACCESS ROAD SCOOPS MATERIAL FROM CENTRAL LOCATION<br>4. EXCAVATOR LOADS MATERIAL INTO ROCK TRUCK<br>5. ROCK TRUCK USES EXISTING ACCESS ROADS TO HAUL MATERIAL TO STAGING AREA B<br><br>NOTE: MAINTENANCE OF THE SOUTHERN PORTION OF SG CHANNEL SHALL BE PERFORMED SUCH THAT IDENTIFIED SENSITIVE RESOURCES ARE AVOIDED. SENSITIVE RESOURCES ARE LOCATED ON THE EARTHEN BERM BETWEEN THE CHANNEL AND STAGING AREA B (SEE SHEET 5 OF THE CONSTRUCTION PLANS).<br><br><u>CULVERT UNDER MONUMENT ROAD:</u><br><br>1. VACTOR STATIONED ON MONUMENT RD FLUSHES ACCUMULATED MATERIAL IN CULVERT AND VACUUMS MATERIAL TO BE HAULED TO AN APPROPRIATE DISPOSAL FACILITY |
| | <u>PILOT CHANNEL EAST OF HOLLISTER BRIDGE:</u><br>1. EQUIPMENT WILL USE ACCESS ROAD EAST OF HOLLISTER STREET/SOUTH OF HOLLISTER BRIDGE<br>2. LONG-REACH EXCAVATOR STATIONED ON PAD ABOVE CHANNEL BANK SCOOPS MATERIAL FROM CHANNEL AND LOADS MATERIAL INTO DUMP TRUCK<br>3. DUMP TRUCK HAULS MATERIAL TO STAGING AREA D<br><br>NOTE: PRIOR TO DREDGING, VEGETATION FOR EQUIPMENT PAD AND ACCESS WILL BE TRIMMED/REMOVED FOR EQUIPMENT CLEARANCE; STANDING WATER MUST BE PUMPED OR VACTORED, AS NEEDED. |

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| STAGING AREAS | <u>STAGING AREA B:</u><br>1. ROCK TRUCK TRANSPORTS/DUMPS SPOILS TO STAGING AREA B<br>2. BULLDOZER MANAGES STOCKPILE<br>3. LOADER DUMPS MATERIAL INTO DUMP TRUCK<br>4. DUMP TRUCK HAULS MATERIAL TO APPROPRIATE DISPOSAL FACILITY AND/OR GREENERY OR STAGING AREA D (IF UTILIZED).<br><br><u>STAGING AREA D:</u><br>1. DUMP TRUCK TRANSPORTS/DUMPS SPOILS TO STAGING AREA D<br>2. BULLDOZER MANAGES STOCKPILE<br>3. BACKHOE SEPARATES AND SORTS MATERIAL (WASTE TIRES, VEGETATION, TRASH) FROM STOCKPILE'<br>4. LOADER DUMPS MATERIAL INTO DUMP TRUCK<br>5. DUMP TRUCKS HAUL TO APPROPRIATE DISPOSAL FACILITY AND/OR GREENERY<br>NOTE: COMPLETE COMPREHENSIVE TRIP LOG MANIFEST IF TRANSPORTING 9 OR MORE WASTE TIRES. |
| **POST-CONSTRUCTION** | DEMOBILIZE EQUIPMENT |
| | REMOVE TEMPORARY CONSTRUCTION BMPS |
| **OTHER NOTES** | CONSTRUCT/MAINTAIN ACCESS ROADS AS NECESSARY.<br><br>TRIM/REMOVE VEGETATION WITHIN CHANNEL FOOTPRINT FOR SURVEY(S), AS NECESSARY.<br><br>MAINTAIN EXISTING 25' X 30' TURNAROUND ALONG NORTH BANK OF PILOT CHANNEL AND MAINTAIN EXISTING TURNAROUNDS, AS NECESSARY.<br><br>PERFORM INSPECTION/MAINTENANCE OF GABION ROCK MATTRESS LOCATED NEAR CONFLUENCE OF SG AND PILOT CHANNELS.<br><br>FUEL EQUIPMENT IN DESIGNATED AREA.<br><br>PLACE BARRIERS AT TRAIL HEADS AND DISNEY BRIDGE. |