

APPENDIX A-2

Basin FMPs

Facility Maintenance Plan

Green Valley Creek - Paseo del Verano Facility Group

Segment Name (Facility number):
Paseo del Verano 1 (1-04-200)



Green Valley Creek - Paseo del Verano Facility Group

Facility Maintenance Plan

Overview

Watershed Management Area (WMA)	San Dieguito River
Watershed (Number)	San Dieguito River (1)
Hydrologic Subarea	905.22
Drainage Name (Number)	Green Valley Creek (04)
Facility Group Name	Green Valley Creek - Paseo del Verano
Segment Name (Facility Number)	Paseo del Verano 1 (1-04-200)
Substrate	Paseo del Verano 1 / Concrete
Location	About 400 feet northeast of the intersection of Paseo del Verano and Caminito Balata
MMP Map No(s).	169
Facility Inspection No.	169
Other Former Names	None



Figure 1: Vicinity Map of Green Valley Creek - Paseo del Verano Facility Group

Green Valley Creek - Paseo del Verano Facility Group

Facility Maintenance Plan

Water Quality Resource Summary

This section describes water quality conditions within the facility and watershed.

San Dieguito River Watershed Management Area; Hydrologic Subarea 905.22

Adopted TMDLs	Bacteria Project I
Highest Priority Water Quality Condition	Bacteria

Green Valley Creek - Paseo del Verano

Beneficial Uses

303(d) listed Impairments	No impairments recorded on the 303(d) List
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Green Valley Creek (First downstream water body)

Beneficial Uses	<ul style="list-style-type: none">• Municipal and Domestic Supply (MUN)• Agricultural Supply (AGR)• Industrial Service Supply (IND)• Industrial Process Supply (PROC)• Contact Water Recreation (REC-1)• Non-contact Water Recreation (REC-2)• Warm Freshwater Habitat (WARM)• Wildlife Habitat (WILD)
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303(d) listed Impairments	Benthic Community Effects, Chloride, Manganese, Pentachlorophenol (PCP), Pesticides, Sulfates, Total Nitrogen as N
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Green Valley Creek - Paseo del Verano Facility Group

Facility Maintenance Plan

Paseo del Verano Segment 1 Detail

Facility Type	Concrete desilting basin
Substrate Detail	Concrete bottom, and earthen and concrete banks
Location Within Watershed	Upper reach of Green Valley Creek (unnamed tributary), immediately upstream of Green Valley Creek
Tributaries (listed from downstream to upstream)	No named tributaries
Facility Length	Approximately 203 feet
Top-of-Bank Width	Approximately 92 feet
Bottom Facility Width	Approximately 75 feet
Facility Depth	Approximately 11 feet
Adjacent Land Use	Agriculture, Open Space, Parks, Single-Family Residential, Transportation
As-Built Drawing Number	17603-8-D
Coastal Zone	No



Figure 1: July 2017, riprap structure at outlet structure



Figure 2: Vicinity Map of Paseo del Verano Segment 1

Green Valley Creek - Paseo del Verano Facility Group

Facility Maintenance Plan

Facility Maintenance History

This section describes previous facility maintenance, regulatory approvals, and mitigation.

History of Maintenance	Prior to 2011: Unknown January 2011 – March 2019: No maintenance conducted
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Past Regulatory Approvals

CEQA None

CDP N/A

SDP None

404 None

401 None

1602 None

Mitigation for Previous Impacts	None
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Hydrology and Hydraulics Summary

This section describes the current conditions in the facility related to hydrology/hydraulics, as well as analysis of hydraulic capacity before and after proposed maintenance, and the potential for erosion following maintenance.

Current Conditions Affecting Facility Capacity	Dense vegetation including tree growth was observed. Approximately 2 feet of sediment deposition was estimated on the upstream side of the rock gabion.
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Maintenance Recommendation	Remove accumulated sediment, debris and vegetation from basin bottom to restore the as-built condition. Trim vegetation on side slopes of the basin. Repair gabion rock-filled barrier walls to as-built condition.
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In-Stream Post-Maintenance Erosion Control Recommendation	N/A (basin)
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Green Valley Creek - Paseo del Verano Facility Group

Facility Maintenance Plan

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses, and notes to illustrate special habitat and wildlife.

Facility Vegetation	<ul style="list-style-type: none">• Eucalyptus woodland• Ornamental plantings• Riparian forest (southern willow forest)
Adjacent Vegetation	<ul style="list-style-type: none">• Agricultural land• Developed land• Eucalyptus woodland• Ornamental plantings
Habitat and Wildlife	There is limited suitable habitat contained within the facility for wildlife. However, raptors could use the eucalyptus woodland present adjacent to the facility for nesting/roosting.
MHPA	The facility is not within or adjacent to the Multi Habitat Planning Area (MHPA)
Mitigation Within Facility	None

Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources

Resource Identified in APE	None
Resource Identified Adjacent to APE	None
Resource Type	N/A

Historical Resources

Resource Identified in APE	None
Potential Historical Resources	None
Constraint Identified	

Green Valley Creek - Paseo del Verano Facility Group

Facility Maintenance Plan

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-1a
EP-BIO-6	MM-BIO-2
Health and Safety/Hazards (HAZ)	MM-BIO-3
EP-HAZ-3	Noise (NOI)
Solid Waste (SW)	MM-NOI-1
EP-SW-2	
EP-SW-3	
EP-SW-4	
EP-SW-5	
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

Green Valley Creek - Paseo del Verano Facility Group

Facility Maintenance Plan

Maintenance Methods

This section describes the specific activities, equipment, and methodology for maintenance of this facility including a general site plan (Map A). It is intended to be used as a guide for the maintenance crew.

Facility Group	Green Valley Creek - Paseo del Verano
Segment Name	Paseo del Verano 1
Facility No.	1-04-200
Facility Location	400 feet northeast of the intersection of Paseo del Verano and Caminito Balata to an outfall structure on east side of Paseo del Verano
Coastal Zone	No
MWMP Proposed Maintenance	Maintenance of desilting basin, per as-built dimensions and Hydrology and Hydraulics recommendations
Hydrology and Hydraulics Maintenance Recommendation	Remove accumulated sediment, debris and vegetation from basin bottom to restore the as-built condition. Trim vegetation on side slopes of the basin. Repair gabion rock-filled barrier walls to as-built condition.
Maintenance Activities	Vegetation grubbing, trimming, and removal Invasive plant species treatment and removal Sediment removal Concrete repair
Maintenance Method	Excavation; mechanized equipment inside and outside the basin Temporary access/loading Temporary staging Temporary diversions Hand removal of vegetation
Bank Repair	No
Concrete Repair	Yes; see Appendix A-4
Concrete/Gabion Structure Repair and Maintenance	Yes; see Appendix A-4
Culvert Maintenance	Yes; see Appendix A-4
Post-Maintenance Erosion Control Recommendation	No
Trash/Debris Fence Repair and Maintenance	No
Facility Type	Concrete desilting basin
Existing Plans and/or As-Builts?	Yes; 17603-8-D
Substrate Detail	Concrete bottom, and earthen and concrete banks
Facility Dimensions (Approximate)	Length: 203 feet Top width: 92 feet Bottom width: 75 feet Depth: 11 feet
Authorized Facility Maintenance Area	Area: Basin: 0.29 acres

Green Valley Creek - Paseo del Verano Facility Group

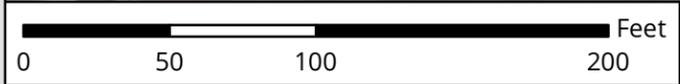
Facility Maintenance Plan

Maintenance Quantities	To be determined at time of maintenance
Access/Loading/Staging/Stockpiling Area(s)	Designated areas on Map A or within City ROW may be used for access, loading, staging, and/or stockpiling. The boundaries of these areas may also be modified as long as changes do not result in new significant environmental impacts.
Equipment	Bobcat/skid-steer, Gradall/excavator, loader, dump truck, trash pump, fuel-powered hand tools, sweeper
Schedule	Up to approximately 30 working days
Maintenance Crew	Approximately 8–16 people
Routine Maintenance Procedures	<ol style="list-style-type: none"> 1. Bobcat/skid-steer, Gradall/excavator, and/or loader enter or are lowered into basin at access/loading area 2. Bobcat/skid-steer pushes material to loader 3. Fuel-powered hand tools used to trim vegetation on side slopes 4. Loader scoops material from basin and loads dump truck at access/loading area 5. Dump truck hauls material to legal disposal site
Traffic Control	Yes; coordinate with the City of San Diego
Additional Maintenance Information	
Pre-Maintenance Meeting	<p>Prior to the start of any maintenance activity, a qualified specialist(s) shall conduct the following on site:</p> <ol style="list-style-type: none"> 1. Review sensitive biological, historical, and water quality resources; if present, flag/delineate 2. Conduct appropriate training 3. Review Best Management Practices (BMP) installation 4. If needed, review pre- and during-maintenance pumping procedure 5. Conduct pre-maintenance site photo documentation
Biology	<p>Suitable habitat for sensitive species¹:</p> <ol style="list-style-type: none"> 1. Within maintenance area: Yes, limited suitable habitat present 2. Adjacent to maintenance area: Yes <p>Activities to be conducted under authority of a qualified biologist:</p> <ol style="list-style-type: none"> 1. Nesting bird surveys required within 72 hours of the start of vegetation clearing from February 1 through September 15
Flow Management	<p>As needed:</p> <ol style="list-style-type: none"> 1. Vactor or pump standing water from facility 2. Install temporary dry-weather flow-diversion berm(s) across facility (upstream and downstream of maintenance area) 3. Position vactor/pump to capture any incoming or contained flows 4. If pumping water through temporary hose(s) to location(s) downstream, allow for distributed discharge and infiltration
Downstream Sensitive Waters	Yes; implement BMPs per Water Pollution Control Plan

¹ Species covered under the Multiple Species Conservation Program, other special-status species, including raptors

Green Valley Creek - Paseo del Verano Facility Group Facility Maintenance Plan

BMP Installation	See Water Pollution Control Plan
In-Stream Post-Maintenance Erosion Control Recommendation	N/A (basin)
Post-Maintenance Procedures	Conduct post-maintenance procedures as follows: <ol style="list-style-type: none">1. Demobilize equipment2. Restore temporary access/loading areas to pre-maintenance condition or as required by the WPCP for final stabilization3. Street Sweeper will sweep/clean debris from street/right-of-way/project area(s), as needed4. Remove temporary BMPs5. Update maintenance record6. Conduct post-maintenance site photo documentation
Other Notes	None



Facility Area	Access/Loading/Staging/Stockpiling Area
Maintenance Area	



Notes:
 1. Concrete repair may occur within this facility area.
 2. Access/Loading/Staging/Stockpiling may also occur within City ROW.
 3. Access/Loading/Staging/Stockpiling may be modified during implementation.

November 2019

Map A: General Site Plan
Facility Group Name: Green Valley Creek - Paseo del Verano
Segment Name: Paseo del Verano 1
Facility No: 1-04-200
Facility Maintenance Plan
Municipal Waterways Maintenance Plan



Facility Maintenance Plan

Los Peñasquitos Canyon Creek - 5-805 Basin Facility Group

Segment Name (Facility number):

5-805 Fwys 1 (2-01-900)



Los Peñasquitos Canyon Creek - 5-805 Basin Facility Group

Facility Maintenance Plan

Overview

Watershed Management Area (WMA)	Los Peñasquitos
Watershed (Number)	Los Peñasquitos (2)
Hydrologic Subarea	906.10
Drainage Name (Number)	Los Peñasquitos Canyon Creek (01)
Facility Group Name	Los Peñasquitos Canyon Creek - 5-805 Basin
Segment Name (Facility Number)	5-805 Fwys 1 (2-01-900)
Substrate	5-805 Fwys 1 / Earthen
Location	About 1,200 feet north of Sorrento Valley Boulevard and east of Vista Sorrento Parkway
MMP Map No(s).	N/A
Facility Inspection No.	N/A
Other Former Names	None

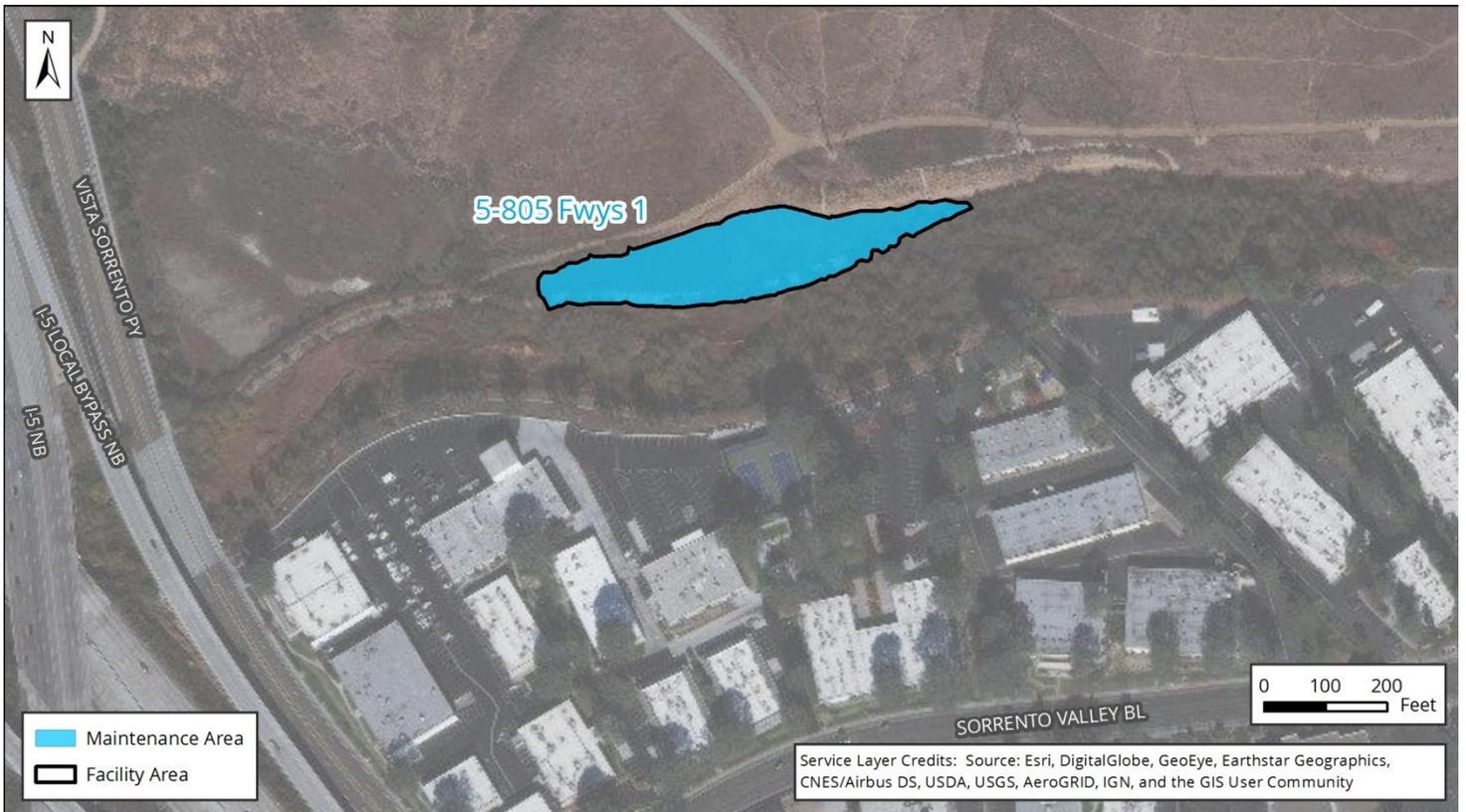


Figure 1: Vicinity Map of Los Peñasquitos Canyon Creek - 5-805 Basin Facility Group

Los Peñasquitos Canyon Creek - 5-805 Basin Facility Group

Facility Maintenance Plan

Water Quality Resource Summary

This section describes water quality conditions within the facility and watershed.

Los Peñasquitos Watershed Management Area; Hydrologic Subarea 906.10

Adopted TMDLs	Los Peñasquitos Lagoon sedimentation and siltation, Bacteria Project I
Highest Priority Water Quality Condition	Bacteria, sediment (wet weather), freshwater discharges (dry weather)

Los Peñasquitos Canyon Creek - 5-805 Basin

Beneficial Uses	<ul style="list-style-type: none"> • Agricultural Supply (AGR) • Industrial Service Supply (IND) • Non-contact Water Recreation (REC-2) • Preservation of Biological Habitats of Special Significance (BIOL) • Warm Freshwater Habitat (WARM) • Wildlife Habitat (WILD)
303(d) listed Impairments	Benthic Community Effects, Indicator Bacteria, Nitrogen, Pesticides, Phosphate, Total Dissolved Solids, Toxicity

Los Peñasquitos Lagoon (First downstream water body)

Beneficial Uses	<ul style="list-style-type: none"> • Contact Water Recreation (REC-1) • Non-contact Water Recreation (REC-2) • Preservation of Biological Habitats of Special Significance (BIOL) • Wildlife Habitat (WILD) • Rare, Threatened, or Endangered Species (RARE) • Spawning, Reproduction, and/or Early Development (SPWN) • Estuarine (EST) • Marine (MAR) • Migration of Aquatic Organisms (MIGR) • Shellfish Harvesting (SHELL)
303(d) listed Impairments	Sedimentation/Siltation, Toxicity

Los Peñasquitos Canyon Creek - 5-805 Basin Facility Group

Facility Maintenance Plan

5-805 Fwys Segment 1 Detail

Facility Type	Earthen desilting basin
Substrate Detail	Earthen bottom and banks
Location Within Watershed	Lower reach of Los Peñasquitos Canyon Creek, upstream of the Los Peñasquitos Lagoon
Tributaries (listed from downstream to upstream)	Soledad Canyon Creek, Soledad Canyon Creek Unnamed Tributary, Los Peñasquitos Canyon Creek Unnamed Tributary, Carroll Canyon Creek
Facility Length	Approximately 744 feet
Top-of-Bank Width	Approximately 64–124 feet
Bottom Facility Width	Approximately 40–100 feet
Facility Depth	Approximately 6 feet
Adjacent Land Use	Industrial, Multi-Family Residential, Office, Open Space, Parks, Single-Family Residential, Transportation, Vacant
As-Built Drawing Number	33927-D
Coastal Zone	DEF-CER



Figure 1: May 2018, looking west into the desilting basin with Penasquitos Creek visible on the outside of the rip rap berm

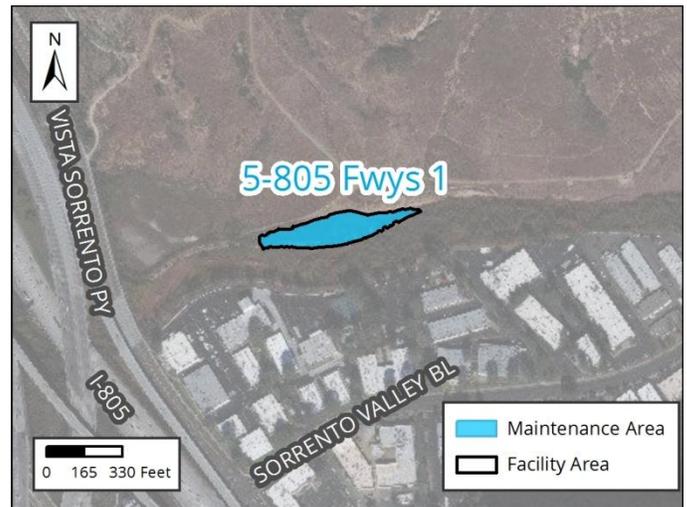


Figure 2: Vicinity Map of 5-805 Fwys Segment 1

Los Peñasquitos Canyon Creek - 5-805 Basin Facility Group

Facility Maintenance Plan

Facility Maintenance History

This section describes previous facility maintenance, regulatory approvals, and mitigation.

History of Maintenance	2008: Basin constructed January 2009 – March 2019: No maintenance conducted
Past Regulatory Approvals	
CEQA	MND No. 47248 February 2006
CDP	CDP No 291354
SDP	SDP No. 151258
404	NWP 7/43 USACE File #SPL-2006-01537-LAM (expired May 2010)
401	RWQCB 401 Cert No. 04C-126 (no expiration)
1602	CDFW SAA No. #1600-2004-0521-R5 (expired March 2012)
Mitigation for Previous Impacts	None; no mitigation required in approvals for construction and routine maintenance of basin

Hydrology and Hydraulics Summary

This section describes the current conditions in the facility related to hydrology/hydraulics, as well as analysis of hydraulic capacity before and after proposed maintenance, and the potential for erosion following maintenance.

Current Conditions Affecting Facility Capacity	Moderate vegetation was observed throughout the basin with a minor amount of sediment deposition
Maintenance Recommendation	Remove vegetation from basin inlet and side weir, and restore to the as-built condition. Remove any accumulated sediment and debris from basin.
In-Stream Post-Maintenance Erosion Control Recommendation	N/A (basin)

Los Peñasquitos Canyon Creek - 5-805 Basin Facility Group

Facility Maintenance Plan

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses, and notes to illustrate special habitat and wildlife.

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|----------------------------|--|
| Facility Vegetation | <ul style="list-style-type: none">• Coastal salt marsh• Disturbed land• Riparian scrub (mulefat scrub)• Tamarisk thickets |
|----------------------------|--|

- | | |
|----------------------------|--|
| Adjacent Vegetation | <ul style="list-style-type: none">• Coastal sage scrub• Coastal salt marsh• Riparian forest (southern willow forest)• Disturbed coastal sage scrub• Disturbed land• Eucalyptus woodland• Natural flood channel• Ornamental plantings• Riparian scrub (mulefat scrub)• Urban / Developed |
|----------------------------|--|

Habitat and Wildlife	There is suitable nesting habitat for sensitive wildlife within and adjacent to the site. Coastal California gnatcatcher has potential to nest in coastal sage scrub habitat north of the basin that is within the MHPA and least Bell's vireo and southwestern willow flycatcher could occur within the riparian scrub (mulefat scrub) and riparian forest (southern willow forest) both within and directly adjacent to the site. Ridgway's rail could also occur within the coastal salt marsh habitat both within and directly adjacent to the basin. In addition, raptors could utilize the tall eucalyptus woodland and ornamental vegetation south of the basin for nesting.
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MHPA	A small section of the basin is intersected by the Multi Habitat Planning Area (MHPA) boundary on the south side.
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Mitigation Within Facility	None. The basin is an artificially constructed wetland.
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Los Peñasquitos Canyon Creek - 5-805 Basin Facility Group

Facility Maintenance Plan

Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources

Resource Identified in APE	P-37-031095
Resource Identified Adjacent to APE	None
Resource Type	Prehistoric hearths

Historical Resources

Resource Identified in APE	Basin; 1960; c. 1963–1974 earthen basin
Potential Historical Resources	Yes
Constraint Identified	

Los Peñasquitos Canyon Creek - 5-805 Basin Facility Group

Facility Maintenance Plan

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-2
EP-BIO-6	MM-BIO-3
Health and Safety/Hazards (HAZ)	MM-BIO-4
EP-HAZ-3	MM-BIO-5
Land Use (LU)	MM-BIO-6
EP-LU-1	MM-BIO-7
Paleontological Resources (PAL)	Historic, Archaeological, and Tribal Cultural Resources (HR and CR)
EP-PAL-1	MM-CR-1
Solid Waste (SW)	MM-CR-2
EP-SW-2	MM-CR-3
EP-SW-3	MM-CR-4
EP-SW-4	MM-HR-1
EP-SW-5	MM-HR-2
EP-SW-6	Noise (NOI)
EP-SW-7	MM-NOI-1
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

Los Peñasquitos Canyon Creek - 5-805 Basin Facility Group

Facility Maintenance Plan

Maintenance Methods

This section describes the specific activities, equipment, and methodology for maintenance of this facility including a general site plan (Map A). It is intended to be used as a guide for the maintenance crew.

Facility Group	Los Peñasquitos Canyon Creek - 5-805 Basin
Segment Name	5-805 Fwys 1
Facility No.	2-01-900
Facility Location	1,200 feet northeast from the intersection of Sorrento Valley Boulevard and Vista Sorrento Parkway
Coastal Zone	DEF-CER
MWMP Proposed Maintenance	Maintenance of desilting basin per as-built dimensions, and Hydrology and Hydraulics recommendations
Hydrology and Hydraulics Maintenance Recommendation	Remove vegetation from basin inlet and side weir, and restore to the as-built condition. Remove any accumulated sediment and debris from basin.
Maintenance Activities	Vegetation grubbing, trimming, and removal Invasive plant species treatment and removal Sediment removal
Maintenance Method	Excavation; mechanized equipment inside and outside the basin Temporary access/loading Temporary staging Temporary diversions using excavated material Hand removal of vegetation
Bank Repair	No
Concrete Repair	No
Concrete/Gabion Structure Repair and Maintenance	No
Culvert Maintenance	No
Post-Maintenance Erosion Control Recommendation	No
Trash/Debris Fence Repair and Maintenance	No
Facility Type	Earthen desilting basin
Existing Plans and/or As-Builts?	Yes; 33927-D
Substrate Detail	Earthen bottom and banks
Facility Dimensions (Approximate)	Length: 744 feet Top width: 64–124 feet Bottom width: 40–100 feet Depth: 6 feet
Authorized Facility Maintenance Area	Area: Basin: 1.44 acres
Maintenance Quantities	To be determined at time of maintenance

Los Peñasquitos Canyon Creek - 5-805 Basin Facility Group

Facility Maintenance Plan

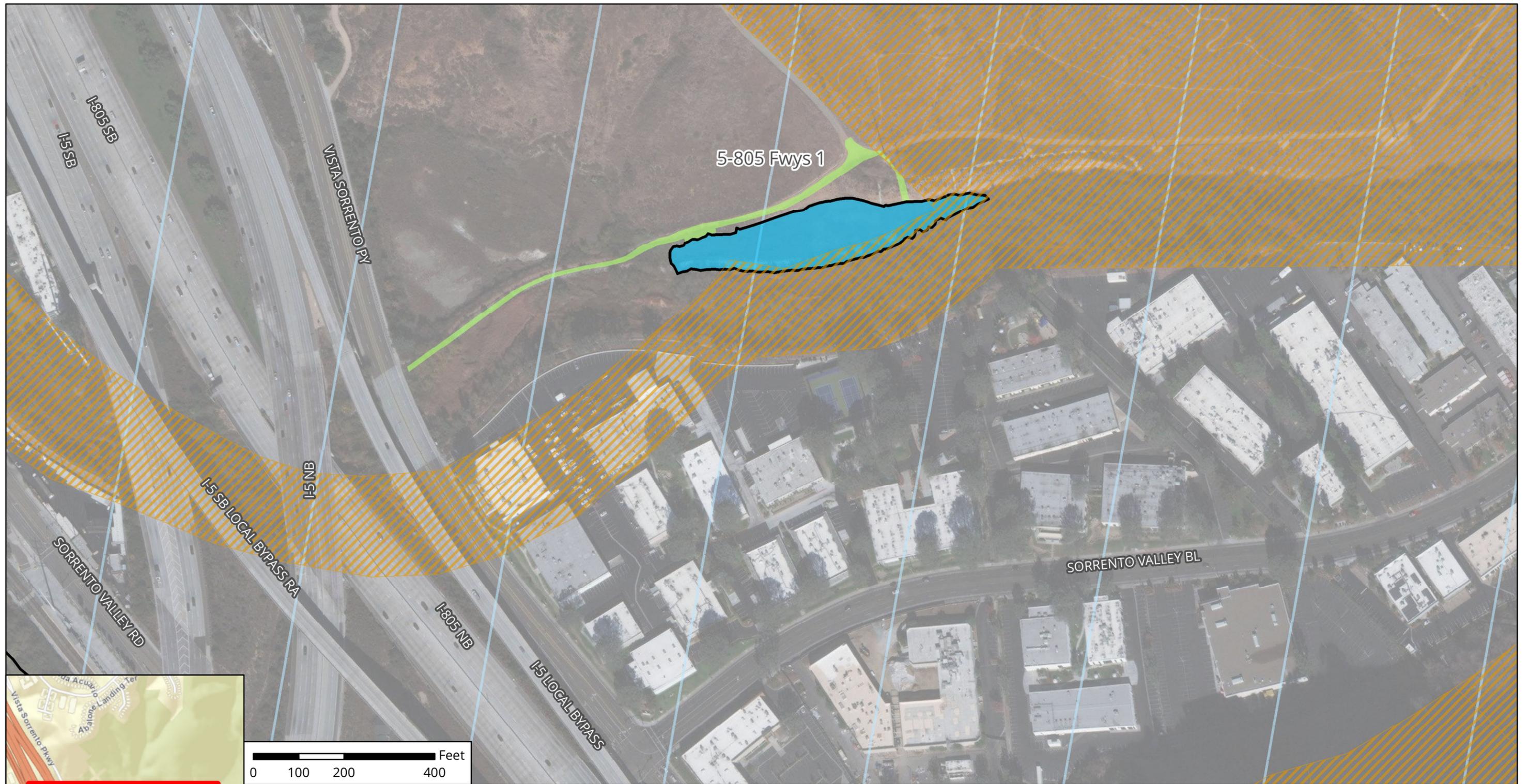
Access/Loading/Staging/Stockpiling Area(s)	Designated areas on Map A or within City ROW may be used for access, loading, staging, and/or stockpiling. The boundaries of these areas may also be modified as long as changes do not result in new significant environmental impacts.
Equipment	Bulldozer/track-steer, Gradall/excavator, loader, dump truck, trash pump, fuel-powered hand tools, sweeper
Schedule	Up to approximately 30–40 working days
Maintenance Crew	Approximately 12–15 people
Routine Maintenance Procedures	<ol style="list-style-type: none"> 1. Bulldozer/track-steer enters basin at access/loading area 2. Bulldozer/track-steer pushes material to Gradall/excavator at access/loading area 3. Gradall/excavator and/or loader scoops material from basin and loads dump truck 4. Dump truck hauls material to legal disposal site
Traffic Control	Yes, on Vista Sorrento Parkway; coordinate with the City of San Diego
Additional Maintenance Information	
Pre-Maintenance Meeting	<p>Prior to the start of any maintenance activity, a qualified specialist(s) shall conduct the following on site:</p> <ol style="list-style-type: none"> 1. Review sensitive biological, historical, and water quality resources; if present, flag/delineate 2. Conduct appropriate training 3. Review Best Management Practices (BMP) installation 4. If needed, review pre- and during-maintenance pumping procedure 5. Conduct pre-maintenance site photo documentation
Biology	<p>Suitable habitat for sensitive species¹:</p> <ol style="list-style-type: none"> 1. Within maintenance area: Yes 2. Adjacent to maintenance area: Yes <p>Activities to be conducted under authority of a qualified biologist:</p> <ol style="list-style-type: none"> 1. Nesting bird surveys required within 72 hours of the start of vegetation clearing from February 1 through September 15
Flow Management	<p>As needed:</p> <ol style="list-style-type: none"> 1. Vactor or pump standing water from facility 2. Install temporary dry-weather flow-diversion berm(s) across facility (upstream and downstream of maintenance area) 3. Position vactor/pump to capture any incoming or contained flows 4. If pumping water through temporary hose(s) to location(s) downstream, allow for distributed discharge and infiltration
Downstream Sensitive Waters	Yes; implement BMPs per Water Pollution Control Plan
BMP Installation	See Water Pollution Control Plan

¹ Species covered under the Multiple Species Conservation Program, other special-status species, including raptors

Los Peñasquitos Canyon Creek - 5-805 Basin Facility Group

Facility Maintenance Plan

In-Stream Post-Maintenance Erosion Control Recommendation	N/A (basin)
Post-Maintenance Procedures	Conduct post-maintenance procedures as follows: <ol style="list-style-type: none">1. Demobilize equipment2. Restore temporary access/loading areas to pre-maintenance condition or as required by the WPCP for final stabilization3. Street Sweeper will sweep/clean debris from street/right-of-way/project area(s), as needed4. Remove temporary BMPs5. Update maintenance record6. Conduct post-maintenance site photo documentation
Other Notes	Equipment will need to be staged overnight on job site. Coordinate with Parks and Recreation, and SDGE.



Facility Area	Access/Loading/Staging/Stockpiling Area
Coastal Zone	Maintenance Area
Multi-Habitat Planning Area	



Notes:
 1. Access/Loading/Staging/Stockpiling may also occur within City ROW.
 2. Access/Loading/Staging/Stockpiling may be modified during implementation.

November 2019

Map A: General Site Plan
Facility Group Name: Los Peñasquitos Canyon Creek - 5-805 Basin
Segment Name: 5-805 Fwys 1
Facility No: 2-01-900
Facility Maintenance Plan
Municipal Waterways Maintenance Plan



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USGS, AeroGRID, IGN, the GIS User Community, SanGIS, and the City of San Diego.

Facility Maintenance Plan

Alta La Jolla - Vickie Facility Group

Segment Name (Facility number):
Vickie 1 (3-00-150)

Alta La Jolla - Vickie Facility Group

Facility Maintenance Plan

Overview

Watershed Management Area (WMA)	Mission Bay
Watershed (Number)	Mission Bay (3)
Hydrologic Subarea	906.30
Drainage Name (Number)	Alta La Jolla (00)
Facility Group Name	Alta La Jolla - Vickie
Segment Name (Facility Number)	Vickie 1 (3-00-150)
Substrate	Vickie 1 / Earthen
Location	Bordered by Vickie Drive to the south, Westknoll Drive to the west and Soledad Road to the east
MMP Map No(s).	N/A
Facility Inspection No.	N/A
Other Former Names	None



Figure 1: Vicinity Map of Alta La Jolla - Vickie Facility Group

Alta La Jolla - Vickie Facility Group Facility Maintenance Plan

Water Quality Resource Summary

This section describes water quality conditions within the facility and watershed.

Mission Bay Watershed Management Area; Hydrologic Subarea 906.30

Adopted TMDLs	Bacteria Project I
Highest Priority Water Quality Condition	Bacteria

Alta La Jolla - Vickie

Beneficial Uses

303(d) listed Impairments	No impairments recorded on the 303(d) List
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Mission Bay (First downstream water body)

Beneficial Uses

- Industrial Service Supply (IND)
- Contact Water Recreation (REC-1)
- Non-contact Water Recreation (REC-2)
- Wildlife Habitat (WILD)
- Rare, Threatened, or Endangered Species (RARE)
- Spawning, Reproduction, and/or Early Development (SPWN)
- Commercial and Sport Fishing (COMM)
- Estaurine (EST)
- Marine (MAR)
- Migration of Aquatic Organisms (MIGR)
- Shellfish Harvesting (SHELL)

303(d) listed Impairments	No additional downstream waterbodies
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Alta La Jolla - Vickie Facility Group

Facility Maintenance Plan

Vickie Segment 1 Detail

Facility Type	Earthen detention basin
Substrate Detail	Earthen bottom and banks
Location Within Watershed	Unnamed tributary to Mission Bay, upstream of Mission Bay
Tributaries (listed from downstream to upstream)	No named tributaries
Facility Length	Approximately 234 feet
Top-of-Bank Width	Approximately 104-124 feet
Bottom Facility Width	Approximately 60-80 feet
Facility Depth	Approximately 11 feet
Adjacent Land Use	Industrial, Multi-Family Residential, Other Residential, Single-Family Residential, Transportation, Vacant
As-Built Drawing Number	35418-D
Coastal Zone	No



Figure 1: May 2018, looking north east into the detention basin from the south western end with the grated concrete culvert partially visible in the foreground

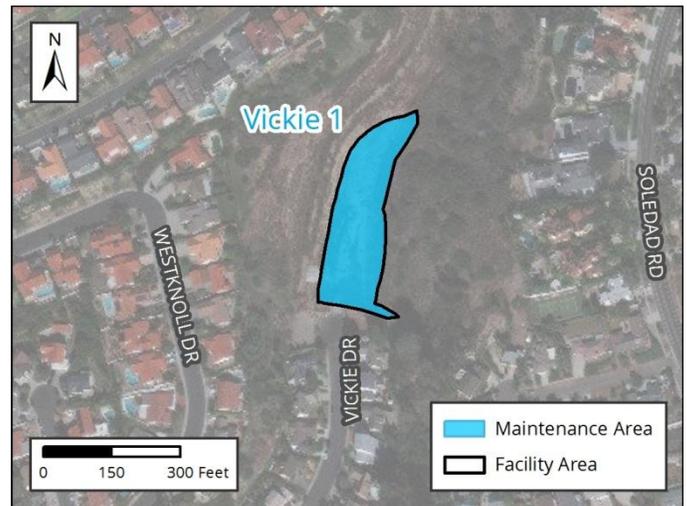


Figure 2: Vicinity Map of Vickie Segment 1

Alta La Jolla - Vickie Facility Group

Facility Maintenance Plan

Facility Maintenance History

This section describes previous facility maintenance, regulatory approvals, and mitigation.

History of Maintenance	2016: Basin constructed and mitigation installed adjacent to basin January 2017 – March 2019: No maintenance conducted
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Past Regulatory Approvals

CEQA MND No. 128971 January 2011

CDP N/A

SDP SDP No. 443956

404 IP USACE File #SPL-2010-00157-RRS (expired June 2018)

401 RWQCB 401 Cert No. 10C-033 (expired November 2018)

1602 CDFW SAA No. 1600-2010-0053-R5 (expires March 2019)

Mitigation for Previous Impacts	None; no mitigation required in approvals for construction and routine maintenance of basin
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Hydrology and Hydraulics Summary

This section describes the current conditions in the facility related to hydrology/hydraulics, as well as analysis of hydraulic capacity before and after proposed maintenance, and the potential for erosion following maintenance.

Current Conditions Affecting Facility Capacity

Dense vegetation including trees and accumulated sediment/debris were observed in the detention basin. The sediment depth was estimated to be approximately 1 foot deep across the basin and inlets and outlets were observed to be partially surrounded by vegetation.

Maintenance Recommendation

Remove accumulated sediment, debris, and vegetation from basin bottom, from around inlet structure at the far north end of the basin, and from outflow structure at the south end of the basin to restore the as-built condition.
Remove accumulated debris from storm drain outlet structures upstream of the basin.

In-Stream Post-Maintenance Erosion Control Recommendation

N/A (basin)

Alta La Jolla - Vickie Facility Group

Facility Maintenance Plan

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses, and notes to illustrate special habitat and wildlife.

-
- | | |
|----------------------------|---|
| Facility Vegetation | <ul style="list-style-type: none">• Coastal sage scrub• Disturbed coastal sage scrub• Disturbed land• Riparian Scrub (mulefat scrub) |
|----------------------------|---|

- | | |
|----------------------------|--|
| Adjacent Vegetation | <ul style="list-style-type: none">• Coastal sage scrub• Disturbed coastal sage scrub• Disturbed land• Eucalyptus woodland• Natural flood channel• Ornamental plantings• Riparian scrub (mulefat scrub)• Urban / Developed |
|----------------------------|--|

Habitat and Wildlife	There is suitable nesting habitat for sensitive wildlife within and adjacent to the site. Coastal California gnatcatcher has potential to nest in coastal sage scrub habitat surrounding the basin that is within the MHPA. Least Bell's vireo could also occur within the riparian scrub (mulefat scrub) both within and adjacent to the site. Additionally, raptors could utilize the tall ornamental vegetation adjacent to the basin for nesting.
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MHPA	The facility is adjacent to the Multi Habitat Planning Area (MHPA). The nearest MHPA boundary is located approximately 100 feet to the west of the basin.
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Mitigation Within Facility	None. Basin was constructed as part of adjacent channel restoration. Adjacent channel areas are part of the Alta La Jolla wetlands mitigation site. The basin is not part of the mitigation site and was anticipated to be routinely maintained.
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Alta La Jolla - Vickie Facility Group

Facility Maintenance Plan

Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources

Resource Identified in APE	None
Resource Identified Adjacent to APE	None
Resource Type	N/A

Historical Resources

Resource Identified in APE	Channel; 5354 Vickie Rd.; c. 1964–1966 earthen channel; building more than 45 years old (not previously evaluated)
Potential Historical Resources	Yes
Constraint Identified	

Alta La Jolla - Vickie Facility Group Facility Maintenance Plan

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-2
EP-BIO-6	MM-BIO-3
Health and Safety/Hazards (HAZ)	MM-BIO-4
EP-HAZ-3	MM-BIO-5
Land Use (LU)	MM-BIO-6
EP-LU-1	Historic, Archaeological, and Tribal Cultural Resources (HR and CR)
Paleontological Resources (PAL)	MM-HR-1
EP-PAL-1	MM-HR-2
Solid Waste (SW)	Noise (NOI)
EP-SW-2	MM-NOI-1
EP-SW-3	
EP-SW-4	
EP-SW-5	
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

Alta La Jolla - Vickie Facility Group

Facility Maintenance Plan

Maintenance Methods

This section describes the specific activities, equipment, and methodology for maintenance of this facility including a general site plan (Map A). It is intended to be used as a guide for the maintenance crew.

Facility Group	Alta La Jolla - Vickie
Segment Name	Vickie 1
Facility No.	3-00-150
Facility Location	North of Vickie Drive
Coastal Zone	No
MWMP Proposed Maintenance	Maintenance of detention basin per as-built dimensions, and Hydrology and Hydraulics recommendations
Hydrology and Hydraulics Maintenance Recommendation	Remove accumulated sediment, debris, and vegetation from basin bottom, from around inlet structure at the far north end of the basin, and from outflow structure at the south end of the basin to restore the as-built condition. Remove accumulated debris from storm drain outlet structures upstream of the basin.
Maintenance Activities	Vegetation grubbing, trimming, and removal Invasive plant species treatment and removal Sediment removal Concrete repair for as-needed repair to inlet and outlet structures
Maintenance Method	Excavation; mechanized equipment inside and outside the basin Temporary access/loading Temporary staging Temporary stockpiling Temporary diversions Hand removal of vegetation
Bank Repair	No
Concrete Repair	Yes; see Appendix A-4
Concrete/Gabion Structure Repair and Maintenance	No
Culvert Maintenance	No
Post-Maintenance Erosion Control Recommendation	No
Trash/Debris Fence Repair and Maintenance	No
Facility Type	Earthen detention basin
Existing Plans and/or As-Builts?	Yes; 35418-D
Substrate Detail	Earthen bottom and banks
Facility Dimensions (Approximate)	Length: 234 feet Top width: 104–124 feet Bottom width: 60–80 feet Depth: 11 feet

Alta La Jolla - Vickie Facility Group

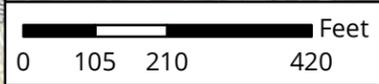
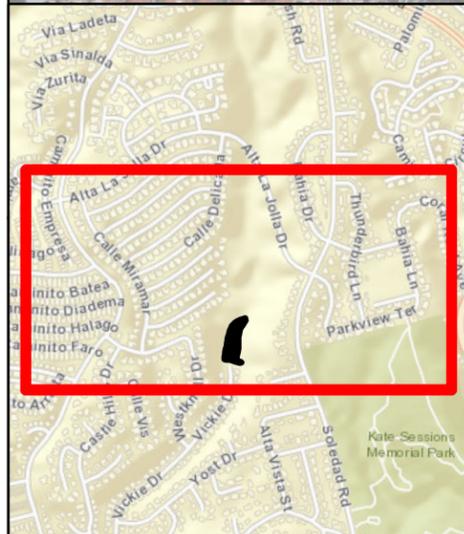
Facility Maintenance Plan

Authorized Facility Maintenance Area	Area: Basin: 1.13 acres
Maintenance Quantities	To be determined at time of maintenance
Access/Loading/Staging/Stockpiling Area(s)	Designated areas on Map A or within City ROW may be used for access, loading, staging, and/or stockpiling. The boundaries of these areas may also be modified as long as changes do not result in new significant environmental impacts.
Equipment	Bulldozer/track-steer, Gradall/excavator, loader, dump truck, trash pump, sweeper
Schedule	Up to approximately 30–45 days
Maintenance Crew	Approximately 8–16 people
Routine Maintenance Procedures	<ol style="list-style-type: none"> 1. Bulldozer/track-steer, Gradall/excavator, and/or loader enter basin at access/loading area 2. Bulldozer/track-steer pushes material to Gradall/excavator at access/loading area. 3. Gradall/excavator scoops material and loads dump truck 4. Dump truck hauls material to legal disposal site
Traffic Control	No
Additional Maintenance Information	
Pre-Maintenance Meeting	<p>Prior to the start of any maintenance activity, a qualified specialist(s) shall conduct the following on site:</p> <ol style="list-style-type: none"> 1. Review sensitive biological, historical, and water quality resources; if present, flag/delineate 2. Conduct appropriate training 3. Review Best Management Practices (BMP) installation 4. If needed, review pre- and during-maintenance pumping procedure 5. Conduct pre-maintenance site photo documentation
Biology	<p>Suitable habitat for sensitive species¹:</p> <ol style="list-style-type: none"> 1. Within maintenance area: Yes 2. Adjacent to maintenance area: Yes <p>Activities to be conducted under authority of a qualified biologist:</p> <ol style="list-style-type: none"> 1. Nesting bird surveys required within 72 hours of the start of vegetation clearing from February 1 through September 15
Flow Management	<p>As needed:</p> <ol style="list-style-type: none"> 1. Vactor or pump standing water from facility 2. Install temporary dry-weather flow-diversion berm(s) across facility (upstream and downstream of maintenance area) 3. Position vactor/pump to capture any incoming or contained flows 4. If pumping water through temporary hose(s) to location(s) downstream, allow for distributed discharge and infiltration

¹ Species covered under the Multiple Species Conservation Program, other special-status species, including raptors

Alta La Jolla - Vickie Facility Group Facility Maintenance Plan

Downstream Sensitive Waters	No
BMP Installation	See Water Pollution Control Plan
In-Stream Post-Maintenance Erosion Control Recommendation	N/A (basin)
Post-Maintenance Procedures	<p>Conduct post-maintenance procedures as follows:</p> <ol style="list-style-type: none"> 1. Demobilize equipment 2. Restore temporary access/loading areas to pre-maintenance condition or as required by the WPCP for final stabilization 3. Street Sweeper will sweep/clean debris from street/right-of-way/project area(s), as needed 4. Remove temporary BMPs 5. Update maintenance record 6. Conduct post-maintenance site photo documentation
Other Notes	Regular watering to minimize the spread of dust offsite is recommended



Facility Area	Access/Loading/Staging/Stockpiling Area
Multi-Habitat Planning Area	Maintenance Area



Notes:

1. Concrete repair may occur within this facility area.
2. Access/Loading/Staging/Stockpiling may also occur within City ROW.
3. Access/Loading/Staging/Stockpiling may be modified during implementation.

November 2019

Map A: General Site Plan
Facility Group Name: Alta La Jolla - Vickie
Segment Name: Vickie 1
Facility No: 3-00-150
Facility Maintenance Plan
Municipal Waterways Maintenance Plan



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USGS, AeroGRID, IGN, the GIS User Community, SanGIS, and the City of San Diego.

Facility Maintenance Plan

Maple Canyon Creek - Maple Facility Group

Segment Name (Facility number):
Maple 1 (5-02-140)



Maple Canyon Creek - Maple Facility Group

Facility Maintenance Plan

Overview

Watershed Management Area (WMA)	San Diego Bay
Watershed (Number)	Pueblo San Diego (5)
Hydrologic Subarea	908.21
Drainage Name (Number)	Maple Canyon Creek (02)
Facility Group Name	Maple Canyon Creek - Maple
Segment Name (Facility Number)	Maple 1 (5-02-140)
Substrate	Maple 1 / Earthen
Location	Bordered by West Laurel Street to the south, State Street to the west, and 1st Avenue to the east
MMP Map No(s).	N/A
Facility Inspection No.	N/A
Other Former Names	None



Figure 1: Vicinity Map of Maple Canyon Creek - Maple Facility Group

Maple Canyon Creek - Maple Facility Group Facility Maintenance Plan

Water Quality Resource Summary

This section describes water quality conditions within the facility and watershed.

San Diego Bay Watershed Management Area; Hydrologic Subarea 908.21

Adopted TMDLs	None
Highest Priority Water Quality Condition	No Highest Priority has been identified for this part of the Watershed Management Area

Maple Canyon Creek - Maple

Beneficial Uses

303(d) listed Impairments	No impairments recorded on the 303(d) List
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San Diego Bay (First downstream water body)

Beneficial Uses

- Industrial Service Supply (IND)
- Contact Water Recreation (REC-1)
- Non-contact Water Recreation (REC-2)
- Preservation of Biological Habitats of Special Significance (BIOL)
- Wildlife Habitat (WILD)
- Rare, Threatened, or Endangered Species (RARE)
- Spawning, Reproduction, and/or Early Development (SPWN)
- Navigation (NAV)
- Commercial and Sport Fishing (COMM)
- Estuarine (EST)
- Marine (MAR)
- Migration of Aquatic Organisms (MIGR)
- Shellfish Harvesting (SHELL)

303(d) listed Impairments	Mercury, PAHs (Polycyclic Aromatic Hydrocarbons), PCBs (Polychlorinated biphenyls)
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Maple Canyon Creek - Maple Facility Group

Facility Maintenance Plan

Maple Segment 1 Detail

Facility Type	Earthen desilting basin
Substrate Detail	Earthen bottom and banks
Location Within Watershed	Lower reach of Maple Canyon Creek, upstream of San Diego Bay
Tributaries (listed from downstream to upstream)	No named tributaries
Facility Length	Approximately 90 feet
Top-of-Bank Width	Approximately 55 feet
Bottom Facility Width	Approximately 35 feet
Facility Depth	Approximately 5 feet
Adjacent Land Use	Commercial, Industrial, Multi-Family Residential, Office, Open Space, Single-Family Residential, Transportation, Vacant
As-Built Drawing Number	None
Coastal Zone	No



Figure 1: May 2018, looking east from the detention basin at the incised natural flood channel upstream

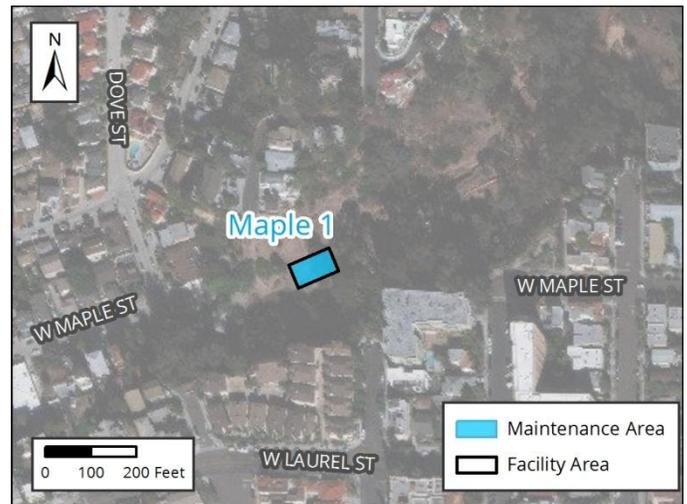


Figure 2: Vicinity Map of Maple Segment 1

Maple Canyon Creek - Maple Facility Group

Facility Maintenance Plan

Facility Maintenance History

This section describes previous facility maintenance, regulatory approvals, and mitigation.

History of Maintenance	Prior to 2011: Unknown January 2011 – March 2019: No maintenance conducted
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Past Regulatory Approvals

CEQA None

CDP N/A

SDP None

404 No Permit Required Letter USACE File #SPL-2016-00393

401 None

1602 None

Mitigation for Previous Impacts	None
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Hydrology and Hydraulics Summary

This section describes the current conditions in the facility related to hydrology/hydraulics, as well as analysis of hydraulic capacity before and after proposed maintenance, and the potential for erosion following maintenance.

Current Conditions Affecting Facility Capacity	Light vegetation was observed and sediment accumulation, including sand, silt, and small cobble varied from 0.5 to 5 feet deep
---	--

Maintenance Recommendation	Remove accumulated sediment, debris, and vegetation from the desilting basin
-----------------------------------	--

In-Stream Post-Maintenance Erosion Control Recommendation	N/A (basin)
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Maple Canyon Creek - Maple Facility Group

Facility Maintenance Plan

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses, and notes to illustrate special habitat and wildlife.

Facility Vegetation	<ul style="list-style-type: none"> • Disturbed land • Natural flood channel
Adjacent Vegetation	<ul style="list-style-type: none"> • Disturbed coastal sage scrub • Disturbed land • Disturbed wetland (palm-dominated) • Eucalyptus woodland • Natural flood channel • Ornamental plantings
Habitat and Wildlife	There is limited suitable nesting habitat onsite for wildlife. However, raptors could utilize the tall ornamental vegetation adjacent to the basin for nesting.
MHPA	The facility is not within or adjacent to the Multi Habitat Planning Area (MHPA). The nearest MHPA boundary is located more than 1,000 feet from the basin.
Mitigation Within Facility	None. Upstream channel areas have been identified as a potential restoration site. A compensatory mitigation plan has not yet been prepared.

Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources

Resource Identified in APE	None
Resource Identified Adjacent to APE	None
Resource Type	N/A

Historical Resources

Resource Identified in APE	Channel; c. 1966–1974 earthen channel
Potential Historical Resources	Yes
Constraint Identified	

Maple Canyon Creek - Maple Facility Group Facility Maintenance Plan

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-1a
EP-BIO-6	MM-BIO-2
Health and Safety/Hazards (HAZ)	MM-BIO-3
EP-HAZ-3	MM-BIO-4
Paleontological Resources (PAL)	MM-BIO-6
EP-PAL-1	Historic, Archaeological, and Tribal Cultural Resources (HR and CR)
Solid Waste (SW)	MM-HR-1
EP-SW-2	MM-HR-2
EP-SW-3	Noise (NOI)
EP-SW-4	MM-NOI-1
EP-SW-5	
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

Maple Canyon Creek - Maple Facility Group

Facility Maintenance Plan

Maintenance Methods

This section describes the specific activities, equipment, and methodology for maintenance of this facility including a general site plan (Map A). It is intended to be used as a guide for the maintenance crew.

Facility Group	Maple Canyon Creek - Maple
Segment Name	Maple 1
Facility No.	5-02-140
Facility Location	300 feet west of the intersection of West Maple Street and Dove Street
Coastal Zone	No
MWMP Proposed Maintenance	Maintenance of desilting basin per estimated original design dimensions, and Hydrology and Hydraulics recommendations
Hydrology and Hydraulics Maintenance Recommendation	Remove accumulated sediment, debris, and vegetation from the desilting basin
Maintenance Activities	Vegetation grubbing, trimming, and removal Invasive plant species treatment and removal Sediment removal
Maintenance Method	Excavation; mechanized equipment inside and outside the basin Temporary access/loading Temporary staging Temporary diversions Hand removal of vegetation
Bank Repair	No
Concrete Repair	No
Concrete/Gabion Structure Repair and Maintenance	No
Culvert Maintenance	No
Post-Maintenance Erosion Control Recommendation	No
Trash/Debris Fence Repair and Maintenance	No
Facility Type	Earthen desilting basin
Existing Plans and/or As-Builts?	None
Substrate Detail	Earthen bottom and banks
Facility Dimensions (Approximate)	Length: 90 feet Top width: 55 feet Bottom width: 35 feet Depth: 5 feet
Authorized Facility Maintenance Area	Area: Basin: 0.12 acres
Maintenance Quantities	To be determined at time of maintenance

Maple Canyon Creek - Maple Facility Group Facility Maintenance Plan

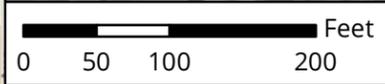
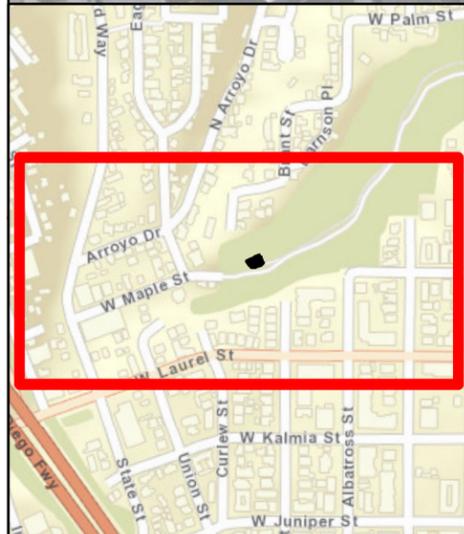
Access/Loading/Staging/Stockpiling Area(s)	Designated areas on Map A or within City ROW may be used for access, loading, staging, and/or stockpiling. The boundaries of these areas may also be modified as long as changes do not result in new significant environmental impacts.
Equipment	Gradall/excavator, loader, dump truck, trash pump, sweeper
Schedule	Up to approximately 5 days
Maintenance Crew	Approximately 8-10 people
Routine Maintenance Procedures	<ol style="list-style-type: none"> 1. Gradall/excavator and/or loader enter basin at access/loading area 2. Gradall/excavator and/or loader scoops material from basin and loads dump truck at access/loading area 3. Dump truck hauls material to legal disposal site
Traffic Control	No
Additional Maintenance Information	
Pre-Maintenance Meeting	<p>Prior to the start of any maintenance activity, a qualified specialist(s) shall conduct the following on site:</p> <ol style="list-style-type: none"> 1. Review sensitive biological, historical, and water quality resources; if present, flag/delineate 2. Conduct appropriate training 3. Review Best Management Practices (BMP) installation 4. If needed, review pre- and during-maintenance pumping procedure 5. Conduct pre-maintenance site photo documentation
Biology	<p>Suitable habitat for sensitive species¹:</p> <ol style="list-style-type: none"> 1. Within maintenance area: Yes, limited suitable habitat present 2. Adjacent to maintenance area: No <p>Activities to be conducted under authority of a qualified biologist:</p> <ol style="list-style-type: none"> 1. Nesting bird surveys required within 72 hours of the start of vegetation clearing from February 1 through September 15
Flow Management	<p>As needed:</p> <ol style="list-style-type: none"> 1. Vactor or pump standing water from facility 2. Install temporary dry-weather flow-diversion berm(s) across facility (upstream and downstream of maintenance area) 3. Position vactor/pump to capture any incoming or contained flows 4. If pumping water through temporary hose(s) to location(s) downstream, allow for distributed discharge and infiltration
Downstream Sensitive Waters	Yes; implement BMPs per Water Pollution Control Plan
BMP Installation	See Water Pollution Control Plan
In-Stream Post-Maintenance Erosion Control Recommendation	N/A (basin)

¹ Species covered under the Multiple Species Conservation Program, other special-status species, including raptors

Maple Canyon Creek - Maple Facility Group

Facility Maintenance Plan

Post-Maintenance Procedures	Conduct post-maintenance procedures as follows: <ol style="list-style-type: none">1. Demobilize equipment2. Restore temporary access/loading areas to pre-maintenance condition or as required by the WPCP for final stabilization3. Street Sweeper will sweep/clean debris from street/right-of-way/project area(s), as needed4. Remove temporary BMPs5. Update maintenance record6. Conduct post-maintenance site photo documentation
Other Notes	None



Facility Area	Access/Loading/Staging/Stockpiling Area
	Maintenance Area



Notes:
 1. Access/Loading/Staging/Stockpiling may also occur within City ROW.
 2. Access/Loading/Staging/Stockpiling may be modified during implementation.

November 2019

Map A: General Site Plan
Facility Group Name: Maple Canyon Creek - Maple
Segment Name: Maple 1
Facility No: 5-02-140
Facility Maintenance Plan
Municipal Waterways Maintenance Plan



Facility Maintenance Plan

Spring Canyon Creek - Cactus Facility Group

Segment Names (Facility numbers):

Cactus 1 (6-04-251)

Cactus 2 (6-04-253)

Spring Canyon Creek - Cactus Facility Group

Facility Maintenance Plan

Overview

Watershed Management Area (WMA)	Tijuana River
Watershed (Number)	Tijuana River (6)
Hydrologic Subarea	911.12
Drainage Name (Number)	Spring Canyon Creek (04)
Facility Group Name	Spring Canyon Creek - Cactus
Segment Name (Facility Number)	Cactus 1 (6-04-251) Cactus 2 (6-04-253)
Substrate	Cactus 1 / Concrete Cactus 2 / Concrete
Location	Bordered to the east by Cactus Road and to the west by a business and industrial area
MMP Map No(s).	125
Facility Inspection No.	125
Other Former Names	None



Figure 1: Vicinity Map of Spring Canyon Creek - Cactus Facility Group

Spring Canyon Creek - Cactus Facility Group

Facility Maintenance Plan

Water Quality Resource Summary

This section describes water quality conditions within the facility and watershed.

Tijuana River Watershed Management Area; Hydrologic Subarea 911.12

Adopted TMDLs	None
Highest Priority Water Quality Condition	Sediment

Spring Canyon Creek - Cactus

Beneficial Uses	
303(d) listed Impairments	No impairments recorded on the 303(d) List

Tijuana River (First downstream water body)

Beneficial Uses	<ul style="list-style-type: none">• Non-contact Water Recreation (REC-2)• Preservation of Biological Habitats of Special Significance (BIOL)• Warm Freshwater Habitat (WARM)• Wildlife Habitat (WILD)• Rare, Threatened, or Endangered Species (RARE)
303(d) listed Impairments	Ammonia as Nitrogen, Benthic Community Effects, Cadmium, Eutrophic, Indicator Bacteria, Low Dissolved Oxygen, Pesticides, Phosphorus, Sedimentation/Siltation, Selenium, Solids, Surfactants (MBAS), Synthetic Organics, Total Nitrogen as N, Toxicity, Trace Elements, Trash

Spring Canyon Creek - Cactus Facility Group

Facility Maintenance Plan

Cactus Segment 1 Detail

Facility Type	Concrete detention basin
Substrate Detail	Concrete bottom and banks
Location Within Watershed	Upper reach of Spring Canyon Creek, immediately upstream of Spring Canyon Creek (Cactus Segment 2)
Tributaries (listed from downstream to upstream)	No named tributaries
Facility Length	Approximately 229 feet
Top-of-Bank Width	Approximately 23 feet
Bottom Facility Width	Approximately 2 feet
Facility Depth	Approximately 7 feet
Adjacent Land Use	Industrial, Transportation
As-Built Drawing Number	23327-10-D & 23327-12-D
Coastal Zone	No



Figure 1: July 2017, standing water and vegetation growth in the basin

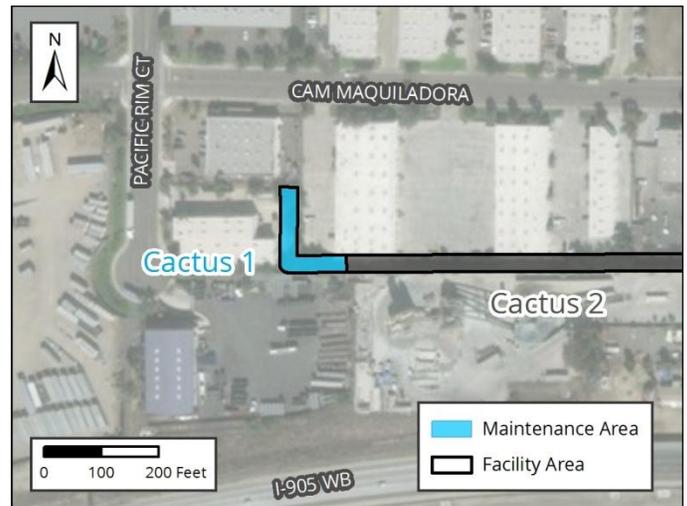


Figure 2: Vicinity Map of Cactus Segment 1

Spring Canyon Creek - Cactus Facility Group

Facility Maintenance Plan

Facility Maintenance History

This section describes previous facility maintenance, regulatory approvals, and mitigation.

History of Maintenance	Prior to 2011: Unknown January 2011 – March 2019: No maintenance conducted
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Past Regulatory Approvals

CEQA 2011 MMP PEIR No. 42891

CDP N/A

SDP SDP No. 2034245 (2017 Addendum)

404 None

401 None

1602 None

Mitigation for Previous Impacts	None; no mitigation required in approvals for construction and routine maintenance of basin
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Hydrology and Hydraulics Summary

This section describes the current conditions in the facility related to hydrology/hydraulics, as well as analysis of hydraulic capacity before and after proposed maintenance, and the potential for erosion following maintenance.

Current Conditions Affecting Facility Capacity	Dense vegetation, tree growth, and accumulated sediment and debris were observed in the basin. Sediment depth was estimated to be approximately 2 feet deep across the basin. All inlets and outlets were fully covered by vegetation.
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Maintenance Recommendation	Remove accumulated sediment, debris, and vegetation throughout the basin to restore the as-built condition
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In-Stream Post-Maintenance Erosion Control Recommendation	N/A (basin)
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Spring Canyon Creek - Cactus Facility Group

Facility Maintenance Plan

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses, and notes to illustrate special habitat and wildlife.

Facility Vegetation	<ul style="list-style-type: none">• Developed concrete-lined channel• Disturbed wetland• Riparian forest (southern willow forest)
Adjacent Vegetation	<ul style="list-style-type: none">• Developed land• Disturbed land• Ornamental plantings
Habitat and Wildlife	Although this basin does contain some suitable vegetation for sensitive wildlife species (e.g., least Bell's vireo), the basin extents and area of vegetation present are limited and isolated from other native habitat such that it is unlikely for wildlife to use the basin for nesting or foraging
MHPA	The facility is not within or adjacent to the Multi Habitat Planning Area (MHPA). The nearest MHPA boundary is located approximately 790 feet to the south of the basin.
Mitigation Within Facility	None

Historical, Archeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources

Resource Identified in APE	None
Resource Identified Adjacent to APE	None
Resource Type	N/A

Historical Resources

Resource Identified in APE	None
Potential Historical Resources	None
Constraint Identified	

Spring Canyon Creek - Cactus Facility Group Facility Maintenance Plan

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-1a
EP-BIO-6	MM-BIO-2
Health and Safety/Hazards (HAZ)	MM-BIO-3
EP-HAZ-3	MM-BIO-4
Solid Waste (SW)	MM-BIO-5
EP-SW-2	MM-BIO-6
EP-SW-3	Noise (NOI)
EP-SW-4	MM-NOI-1
EP-SW-5	
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

Spring Canyon Creek - Cactus Facility Group

Facility Maintenance Plan

Maintenance Methods

This section describes the specific activities, equipment, and methodology for maintenance of this facility including a general site plan (Map A). It is intended to be used as a guide for the maintenance crew.

Facility Group	Spring Canyon Creek - Cactus
Segment Name	Cactus 1
Facility No.	6-04-251
Facility Location	From Cactus Road to the east to Cactus 2 segment to the west
Coastal Zone	No
MWMP Proposed Maintenance	Maintenance of concrete detention basin per as-built dimensions and Hydrology and Hydraulics recommendations
Hydrology and Hydraulics Maintenance Recommendation	Remove accumulated sediment, debris, and vegetation throughout the basin to restore the as-built condition
Maintenance Activities	Vegetation grubbing, trimming, and removal Invasive plant species treatment and removal Sediment removal Concrete repair
Maintenance Method	Excavation; mechanized equipment inside and outside the basin Temporary access/loading Temporary staging Temporary diversions Hand removal of vegetation
Bank Repair	No
Concrete Repair	Yes; see Appendix A-4
Concrete/Gabion Structure Repair and Maintenance	No
Culvert Maintenance	No
Post-Maintenance Erosion Control Recommendation	No
Trash/Debris Fence Repair and Maintenance	No
Facility Type	Concrete detention basin
Existing Plans and/or As-Builts?	Yes; 23327-10-D & 23327-12-D
Substrate Detail	Concrete bottom and banks
Facility Dimensions (Approximate)	Length: 229 feet Top width: 23 feet Bottom width: 2 feet Depth: 7 feet
Authorized Facility Maintenance Area	Length: Basin: 229 feet Width: 23 feet
Maintenance Quantities	To be determined at time of maintenance

Spring Canyon Creek - Cactus Facility Group

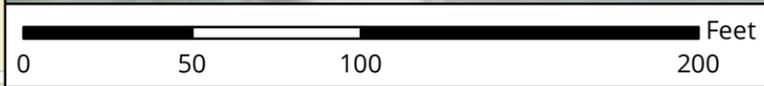
Facility Maintenance Plan

Access/Loading/Staging/Stockpiling Area(s)	Designated areas on Map A and Smuggler's Gulch Map B or within City ROW may be used for access, loading staging, and/or stockpiling. The boundaries of these areas may also be modified as long as changes do not result in new significant environmental impacts.
Equipment	Bobcat/skid-steer, Gradall/excavator, loader, dump truck, trash pump, fuel-powered hand tools, sweeper
Schedule	Up to approximately 14 working days
Maintenance Crew	Approximately 8-12 people
Routine Maintenance Procedures	<ol style="list-style-type: none"> 1. Bobcat/skid-steer and loader enter or are lowered into basin at access/loading area with Gradall/excavator assistance 2. Bobcat/skid-steer and loader pushes material to Gradall/excavator at access/loading area 3. Gradall/excavator scoops material from basin and loads dump truck 4. Dump truck hauls material to legal disposal site
Traffic Control	No
Additional Maintenance Information	
Pre-Maintenance Meeting	<p>Prior to the start of any maintenance activity, a qualified specialist(s) shall conduct the following on site:</p> <ol style="list-style-type: none"> 1. Review sensitive biological, historical, and water quality resources; if present, flag/delineate 2. Conduct appropriate training 3. Review Best Management Practices (BMP) installation 4. If needed, review pre- and during-maintenance pumping procedure 5. Conduct pre-maintenance site photo documentation
Biology	<p>Suitable habitat for sensitive species¹:</p> <ol style="list-style-type: none"> 1. Within maintenance area: Yes, limited suitable habitat present 2. Adjacent to maintenance area: Yes, limited suitable habitat present <p>Activities to be conducted under authority of a qualified biologist:</p> <ol style="list-style-type: none"> 1. Nesting bird surveys required within 72 hours of the start of vegetation clearing from February 1 through September 15 2. Ensure adequate implementation of Shot Hole Borer beetle procedures in accordance with current guidelines, if necessary
Flow Management	<p>As needed:</p> <ol style="list-style-type: none"> 1. Vactor or pump standing water from facility 2. Install temporary dry-weather flow-diversion berm(s) across facility (upstream and downstream of maintenance area) 3. Position vactor/pump to capture any incoming or contained flows 4. If pumping water through temporary hose(s) to location(s) downstream, allow for distributed discharge and infiltration
Downstream Sensitive Waters	Yes; implement BMPs per Water Pollution Control Plan

¹ Species covered under the Multiple Species Conservation Program, other special-status species, including raptors

Spring Canyon Creek - Cactus Facility Group Facility Maintenance Plan

BMP Installation	See Water Pollution Control Plan
In-Stream Post-Maintenance Erosion Control Recommendation	N/A (basin)
Post-Maintenance Procedures	Conduct post-maintenance procedures as follows: <ol style="list-style-type: none">1. Demobilize equipment2. Restore temporary access/loading areas to pre-maintenance condition or as required by the WPCP for final stabilization3. Street Sweeper will sweep/clean debris from street/right-of-way/project area(s), as needed4. Remove temporary BMPs5. Update maintenance record6. Conduct post-maintenance site photo documentation
Other Notes	None



Facility Area	Adjacent Facility Activity Area
Access/Loading/Staging /Stockpiling Area	Maintenance Area



November 2019

Map A: General Site Plan
Facility Group Name: Spring Canyon Creek - Cactus
Segment Name: Cactus 1
Facility No: 6-04-251
Facility Maintenance Plan
Municipal Waterways Maintenance Plan



Notes:
 1. Concrete repair may occur within this facility area.
 2. Access/Loading/Staging/Stockpiling may also occur within City ROW.
 3. Access/Loading/Staging/Stockpiling may be modified during implementation.

Spring Canyon Creek - Cactus Facility Group

Facility Maintenance Plan

Cactus Segment 2 Detail

Facility Type	Concrete detention basin
Substrate Detail	Concrete bottom and banks
Location Within Watershed	Upper reach of Spring Canyon Creek
Tributaries (listed from downstream to upstream)	No named tributaries
Facility Length	Approximately 923 feet
Top-of-Bank Width	Approximately 25 feet
Bottom Facility Width	Approximately 7-10 feet
Facility Depth	Approximately 5 feet
Adjacent Land Use	Industrial, Transportation
As-Built Drawing Number	23327-8-D & 23327-12-D
Coastal Zone	No



Figure 1: July 2017, sediment, debris deposition and vegetation growth in basin

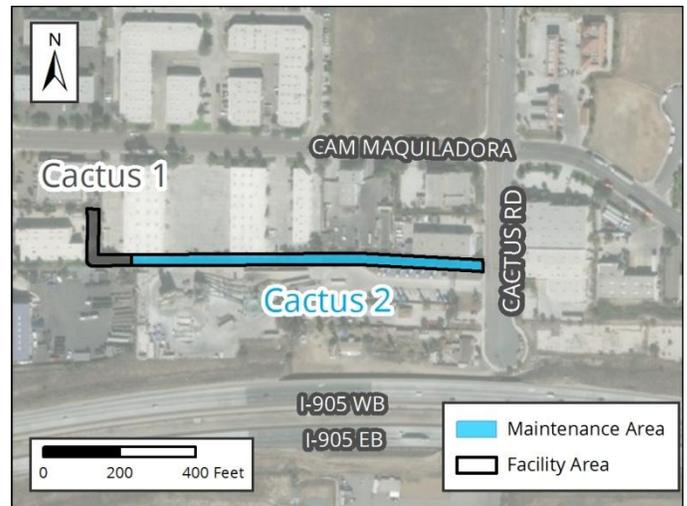


Figure 2: Vicinity Map of Cactus Segment 2

Spring Canyon Creek - Cactus Facility Group

Facility Maintenance Plan

Facility Maintenance History

This section describes previous facility maintenance, regulatory approvals, and mitigation.

History of Maintenance Prior to 2011: Unknown
January 2011 – March 2019: No maintenance conducted

Past Regulatory Approvals

CEQA 2011 MMP PEIR No. 42891

CDP N/A

SDP SDP No. 2034245 (2017 Addendum)

404 None

401 None

1602 None

Mitigation for Previous Impacts None; no mitigation required in approvals for construction and routine maintenance of basin

Hydrology and Hydraulics Summary

This section describes the current conditions in the facility related to hydrology/hydraulics, as well as analysis of hydraulic capacity before and after proposed maintenance, and the potential for erosion following maintenance.

Current Conditions Affecting Facility Capacity

Heavy vegetation and accumulated sediment and debris was observed in the basin. Sediment depth was estimated to be approximately 6 inches deep across the bottom of the basin. Inlets and outlets were fully covered by vegetation. Approximately 6 inches of standing water was observed west of outflow structure.

Maintenance Recommendation

Remove accumulated sediment, debris, and vegetation throughout the basin to restore the as-built condition

In-Stream Post-Maintenance Erosion Control Recommendation

N/A (basin)

Spring Canyon Creek - Cactus Facility Group

Facility Maintenance Plan

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses, and notes to illustrate special habitat and wildlife.

Facility Vegetation	<ul style="list-style-type: none"> • Developed concrete-lined channel • Disturbed wetland (concrete-lined) • Ornamental plantings (concrete-lined) • Riparian forest (southern willow forest; concrete-lined) • Riparian scrub (southern willow scrub; concrete-lined)
Adjacent Vegetation	<ul style="list-style-type: none"> • Developed land • Disturbed land • Ornamental plantings
Habitat and Wildlife	Although this basin does contain some suitable vegetation for sensitive wildlife species (e.g., least Bell's vireo), the basin extents and area of vegetation present are limited and isolated from other native habitat such that it is unlikely for wildlife to utilize the basin for nesting or foraging
MHPA	The facility is not within or adjacent to the Multi Habitat Planning Area (MHPA). The nearest MHPA boundary is located approximately 870 feet to the south of the basin.
Mitigation Within Facility	None

Historical, Archeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources	
Resource Identified in APE	None
Resource Identified Adjacent to APE	None
Resource Type	N/A

Historical Resources	
Resource Identified in APE	None
Potential Historical Resources	None
Constraint Identified	

Spring Canyon Creek - Cactus Facility Group

Facility Maintenance Plan

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-1a
EP-BIO-6	MM-BIO-2
Health and Safety/Hazards (HAZ)	MM-BIO-3
EP-HAZ-1	MM-BIO-4
EP-HAZ-3	MM-BIO-5
Solid Waste (SW)	MM-BIO-6
EP-SW-2	Noise (NOI)
EP-SW-3	MM-NOI-1
EP-SW-4	
EP-SW-5	
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

Spring Canyon Creek - Cactus Facility Group

Facility Maintenance Plan

Maintenance Methods

This section describes the specific activities, equipment, and methodology for maintenance of this facility including a general site plan (Map A). It is intended to be used as a guide for the maintenance crew.

Facility Group	Spring Canyon Creek - Cactus
Segment Name	Cactus 2
Facility No.	6-04-253
Facility Location	From outlet of storm drain pipe that drains Pacific Rim Court that enters the north end of the basin from the northwest to an outflow structure located at the southwest corner of the basin
Coastal Zone	No
MWMP Proposed Maintenance	Maintenance of concrete detention basin per as-built dimensions and Hydrology and Hydraulics recommendations
Hydrology and Hydraulics Maintenance Recommendation	Remove accumulated sediment, debris, and vegetation throughout the basin to restore the as-built condition
Maintenance Activities	Vegetation grubbing, trimming, and removal Invasive plant species treatment and removal Sediment removal Concrete repair
Maintenance Method	Excavation; mechanized equipment inside and outside the basin Temporary access/loading Temporary staging Temporary diversions Hand removal of vegetation
Bank Repair	No
Concrete Repair	Yes; see Appendix A-4
Concrete/Gabion Structure Repair and Maintenance	No
Culvert Maintenance	No
Post-Maintenance Erosion Control Recommendation	No
Trash/Debris Fence Repair and Maintenance	No
Facility Type	Concrete detention basin
Existing Plans and/or As-Builts?	Yes; 23327-8-D & 23327-12-D
Substrate Detail	Concrete bottom and banks
Facility Dimensions (Approximate)	Length: 923 feet Top width: 25 feet Bottom width: 7-10 feet Depth: 5 feet
Authorized Facility Maintenance Area	Length: Basin: 923 feet Width: 25 feet
Maintenance Quantities	To be determined at time of maintenance

Spring Canyon Creek - Cactus Facility Group

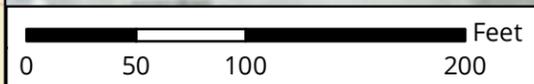
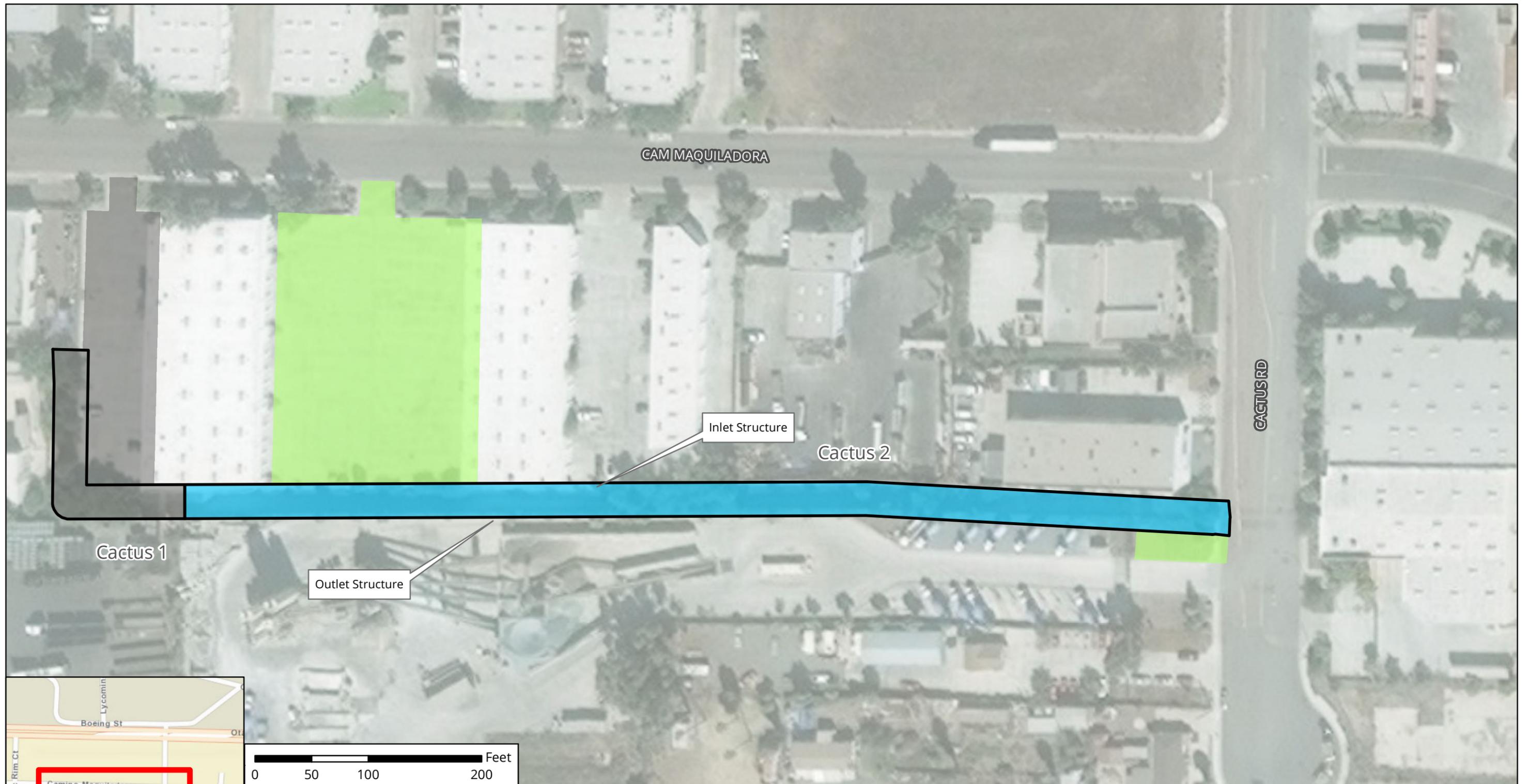
Facility Maintenance Plan

Access/Loading/Staging/Stockpiling Area(s)	Designated areas on Map A and Smuggler's Gulch Map B or within City ROW may be used for access, loading staging, and/or stockpiling. The boundaries of these areas may also be modified as long as changes do not result in new significant environmental impacts.
Equipment	Bobcat/skid-steer, Gradall/excavator, loader, dump truck, trash pump, fuel-powered hand tools, sweeper
Schedule	Up to approximately 14 working days
Maintenance Crew	Approximately 8-12 people
Routine Maintenance Procedures	<ol style="list-style-type: none"> 1. Bobcat/skid-steer and loader enter or are lowered into basin at access/loading area with Gradall/excavator assistance 2. Bobcat/skid-steer and loader pushes material to Gradall/excavator at access/loading area 3. Gradall/excavator scoops material from basin and loads dump truck 4. Dump truck hauls material to legal disposal site
Traffic Control	No
Additional Maintenance Information	
Pre-Maintenance Meeting	<p>Prior to the start of any maintenance activity, a qualified specialist(s) shall conduct the following on site:</p> <ol style="list-style-type: none"> 1. Review sensitive biological, historical, and water quality resources; if present, flag/delineate 2. Conduct appropriate training 3. Review Best Management Practices (BMP) installation 4. If needed, review pre- and during-maintenance pumping procedure 5. Conduct pre-maintenance site photo documentation
Biology	<p>Suitable habitat for sensitive species¹:</p> <ol style="list-style-type: none"> 1. Within maintenance area: Yes, limited suitable habitat present 2. Adjacent to maintenance area: Yes, limited suitable habitat present <p>Activities to be conducted under authority of a qualified biologist:</p> <ol style="list-style-type: none"> 1. Nesting bird surveys required within 72 hours of the start of vegetation clearing from February 1 through September 15 2. Ensure adequate implementation of Shot Hole Borer beetle procedures in accordance with current guidelines, if necessary
Flow Management	<p>As needed:</p> <ol style="list-style-type: none"> 1. Vactor or pump standing water from facility 2. Install temporary dry-weather flow-diversion berm(s) across facility (upstream and downstream of maintenance area) 3. Position vactor/pump to capture any incoming or contained flows 4. If pumping water through temporary hose(s) to location(s) downstream, allow for distributed discharge and infiltration
Downstream Sensitive Waters	Yes; implement BMPs per Water Pollution Control Plan

¹ Species covered under the Multiple Species Conservation Program, other special-status species, including raptors

Spring Canyon Creek - Cactus Facility Group Facility Maintenance Plan

BMP Installation	See Water Pollution Control Plan
In-Stream Post-Maintenance Erosion Control Recommendation	N/A (basin)
Post-Maintenance Procedures	Conduct post-maintenance procedures as follows: <ol style="list-style-type: none">1. Demobilize equipment2. Restore temporary access/loading areas to pre-maintenance condition or as required by the WPCP for final stabilization3. Street Sweeper will sweep/clean debris from street/right-of-way/project area(s), as needed4. Remove temporary BMPs5. Update maintenance record6. Conduct post-maintenance site photo documentation
Other Notes	None



Facility Area	Adjacent Facility Activity Areas
Access/Loading/Staging/Stockpiling Area	Maintenance Area



Notes:
 1. Concrete repair may occur within this facility area.
 2. Access/Loading/Staging/Stockpiling may also occur within City ROW.
 3. Access/Loading/Staging/Stockpiling may be modified during implementation.

August 2019

Map A: General Site Plan
Facility Group Name: Spring Canyon Creek - Cactus
Segment Name: Cactus 2
Facility No: 6-04-253
Facility Maintenance Plan
Municipal Waterways Maintenance Plan



Facility Maintenance Plan

Tijuana River - Siempre Viva Facility Group

Segment Name (Facility number):
Siempre Viva 1 (6-05-110)



Tijuana River - Siempre Viva Facility Group

Facility Maintenance Plan

Overview

Watershed Management Area (WMA)	Tijuana River
Watershed (Number)	Tijuana River (6)
Hydrologic Subarea	911.12
Drainage Name (Number)	Tijuana River Unnamed Tributary (05)
Facility Group Name	Tijuana River - Siempre Viva
Segment Name (Facility Number)	Siempre Viva 1 (6-05-110)
Substrate	Siempre Viva 1 / Earthen
Location	Bordered by the International Border to the south, Siempre Viva Road to the north, and Britannia Boulevard to the west
MMP Map No(s).	126, 127
Facility Inspection No.	126, 127
Other Former Names	Bristow Channel, Wruck Canyon



Figure 1: Vicinity Map of Tijuana River - Siempre Viva Facility Group

Tijuana River - Siempre Viva Facility Group Facility Maintenance Plan

Water Quality Resource Summary

This section describes water quality conditions within the facility and watershed.

Tijuana River Watershed Management Area; Hydrologic Subarea 911.12

Adopted TMDLs	None
Highest Priority Water Quality Condition	Sediment

Tijuana River - Siempre Viva

Beneficial Uses	<ul style="list-style-type: none"> • Agricultural Supply (AGR) • Non-contact Water Recreation (REC-2) • Warm Freshwater Habitat (WARM) • Wildlife Habitat (WILD)
303(d) listed Impairments	No impairments recorded on the 303(d) List

Tijuana River (First downstream water body)

Beneficial Uses	<ul style="list-style-type: none"> • Non-contact Water Recreation (REC-2) • Preservation of Biological Habitats of Special Significance (BIOL) • Warm Freshwater Habitat (WARM) • Wildlife Habitat (WILD) • Rare, Threatened, or Endangered Species (RARE)
303(d) listed Impairments	Ammonia as Nitrogen, Benthic Community Effects, Cadmium, Eutrophic, Indicator Bacteria, Low Dissolved Oxygen, Pesticides, Phosphorus, Sedimentation/Siltation, Selenium, Solids, Surfactants (MBAS), Synthetic Organics, Total Nitrogen as N, Toxicity, Trace Elements, Trash

Tijuana River - Siempre Viva Facility Group Facility Maintenance Plan

Siempre Viva Segment 1 Detail

Facility Type	Earthen detention basin
Substrate Detail	Earthen bottom and banks
Location Within Watershed	Upper reach of Tijuana River unnamed tributary, upstream of Tijuana River
Tributaries (listed from downstream to upstream)	No named tributaries
Facility Length	Approximately 2,896 feet
Top-of-Bank Width	Approximately 30 feet
Bottom Facility Width	Approximately 4-8 feet
Facility Depth	Approximately 6 feet
Adjacent Land Use	Commercial, Industrial, Mexico (out of jurisdiction), Open Space, Transportation, Vacant
As-Built Drawing Number	22611-D
Coastal Zone	No



Figure 1: December 2016, downstream portion looking south towards the shared detention facility



Figure 2: Vicinity Map of Siempre Viva Segment 1

Tijuana River - Siempre Viva Facility Group

Facility Maintenance Plan

Facility Maintenance History

This section describes previous facility maintenance, regulatory approvals, and mitigation.

History of Maintenance	Prior to 2011: Unknown 2011 – 2017: No maintenance conducted 2018 – 2019: Routine maintenance conducted
Past Regulatory Approvals	
CEQA	2011 MMP PEIR No. 42891
CDP	N/A
SDP	SDP No. 2034245 (2017 Addendum)
404	N/A; No Permit Required
401	N/A; No Permit Required
1602	N/A; No Permit Required
Mitigation for Previous Impacts	None; no mitigation required in approvals for construction and routine maintenance of basin

Hydrology and Hydraulics Summary

This section describes the current conditions in the facility related to hydrology/hydraulics, as well as analysis of hydraulic capacity before and after proposed maintenance, and the potential for erosion following maintenance.¹

Current Conditions Affecting Facility Capacity	The vegetation was observed to range from light to dense with evidence of approximately 1.5 feet of sediment deposition
Maintenance Recommendation	Remove accumulated sediment, debris, and vegetation from ditch bottom and banks from Station 175 to Station 736 in Reach 1, from Station 736 to Station 1460 in Reach 2, and from Station 771 to Station 1311 in Reach 3. Remove accumulated sediment/debris and vegetation from detention basin in Reach 3 (Siempre Viva Channel Detention Basin) from Station 0 to Station 771. Remove accumulated sediment/debris and vegetation from detention basin in Reach 1 (Bristow Channel Detention Basin) from Station 0 to Station 175. The existing wet well (Station 0 to Station 45) is recommended to be maintained by private property owners.
In-Stream Post-Maintenance Erosion Control Recommendation	N/A (basin)

¹ Stations are approximate and may not directly correspond with facility and/or maintenance lengths

Tijuana River - Siempre Viva Facility Group

Facility Maintenance Plan

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses, and notes to illustrate special habitat and wildlife.

- | | |
|----------------------------|---|
| Facility Vegetation | <ul style="list-style-type: none"> • Developed concrete-lined channel • Disturbed wetland • Ornamental plantings • Riparian forest (southern willow forest) • Riparian scrub |
|----------------------------|---|

- | | |
|----------------------------|--|
| Adjacent Vegetation | <ul style="list-style-type: none"> • Developed concrete-lined channel • Developed land • Disturbed land • Ornamental plantings |
|----------------------------|--|

Habitat and Wildlife	This basin contains suitable vegetation for sensitive wildlife species (e.g., least Bell's vireo). However, the basin extents are limited and it is isolated from other native areas such that the potential for sensitive species to use the basin for nesting or foraging is low.
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MHPA	The facility is not within or adjacent to the Multi Habitat Planning Area (MHPA). The nearest MHPA boundary is located more than 1,000 feet west of the basin.
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Mitigation Within Facility	None
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Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources

Resource Identified in APE	P-37-007208
Resource Identified Adjacent to APE	None
Resource Type	Prehistoric lithic scatter

Historical Resources

Resource Identified in APE	None
Potential Historical Resources	None
Constraint Identified	

Tijuana River - Siempre Viva Facility Group

Facility Maintenance Plan

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-2
EP-BIO-6	MM-BIO-3
Health and Safety/Hazards (HAZ)	MM-BIO-4
EP-HAZ-3	MM-BIO-5
Paleontological Resources (PAL)	MM-BIO-6
EP-PAL-1	Noise (NOI)
Solid Waste (SW)	MM-NOI-1
EP-SW-2	
EP-SW-3	
EP-SW-4	
EP-SW-5	
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

Tijuana River - Siempre Viva Facility Group

Facility Maintenance Plan

Maintenance Methods

This section describes the specific activities, equipment, and methodology for maintenance of this facility including a general site plan (Map A). It is intended to be used as a guide for the maintenance crew.

Facility Group	Tijuana River - Siempre Viva
Segment Name	Siempre Viva 1
Facility No.	6-05-110
Facility Location	From outlet of culvert underneath Britannia Boulevard to the end of the cul-de-sac at Britannia Court
Coastal Zone	No
MWMP Proposed Maintenance	Maintenance of earthen channel/detention basin per as-built dimensions and Hydrology and Hydraulics recommendations
Hydrology and Hydraulics Maintenance Recommendation²	Remove accumulated sediment, debris, and vegetation from ditch bottom and banks from Station 175 to Station 736 in Reach 1, from Station 736 to Station 1460 in Reach 2, and from Station 771 to Station 1311 in Reach 3. Remove accumulated sediment/debris and vegetation from detention basin in Reach 3 (Siempre Viva Channel Detention Basin) from Station 0 to Station 771. Remove accumulated sediment/debris and vegetation from detention basin in Reach 1 (Bristow Channel Detention Basin) from Station 0 to Station 175. The existing wet well (Station 0 to Station 45) is recommended to be maintained by private property owners.
Maintenance Activities	Vegetation grubbing, trimming, and removal Invasive plant species treatment and removal Sediment removal
Maintenance Method	Excavation; mechanized equipment inside and outside the basin Temporary access/loading Temporary staging Temporary diversions Hand removal of vegetation
Bank Repair	No
Concrete Repair	Yes; see Appendix A-4
Concrete/Gabion Structure Repair and Maintenance	No
Culvert Maintenance	No
Post-Maintenance Erosion Control Recommendation	No
Trash/Debris Fence Repair and Maintenance	No
Facility Type	Earthen detention basin

² Stations are approximate and may not directly correspond with facility and/or maintenance lengths

Tijuana River - Siempre Viva Facility Group

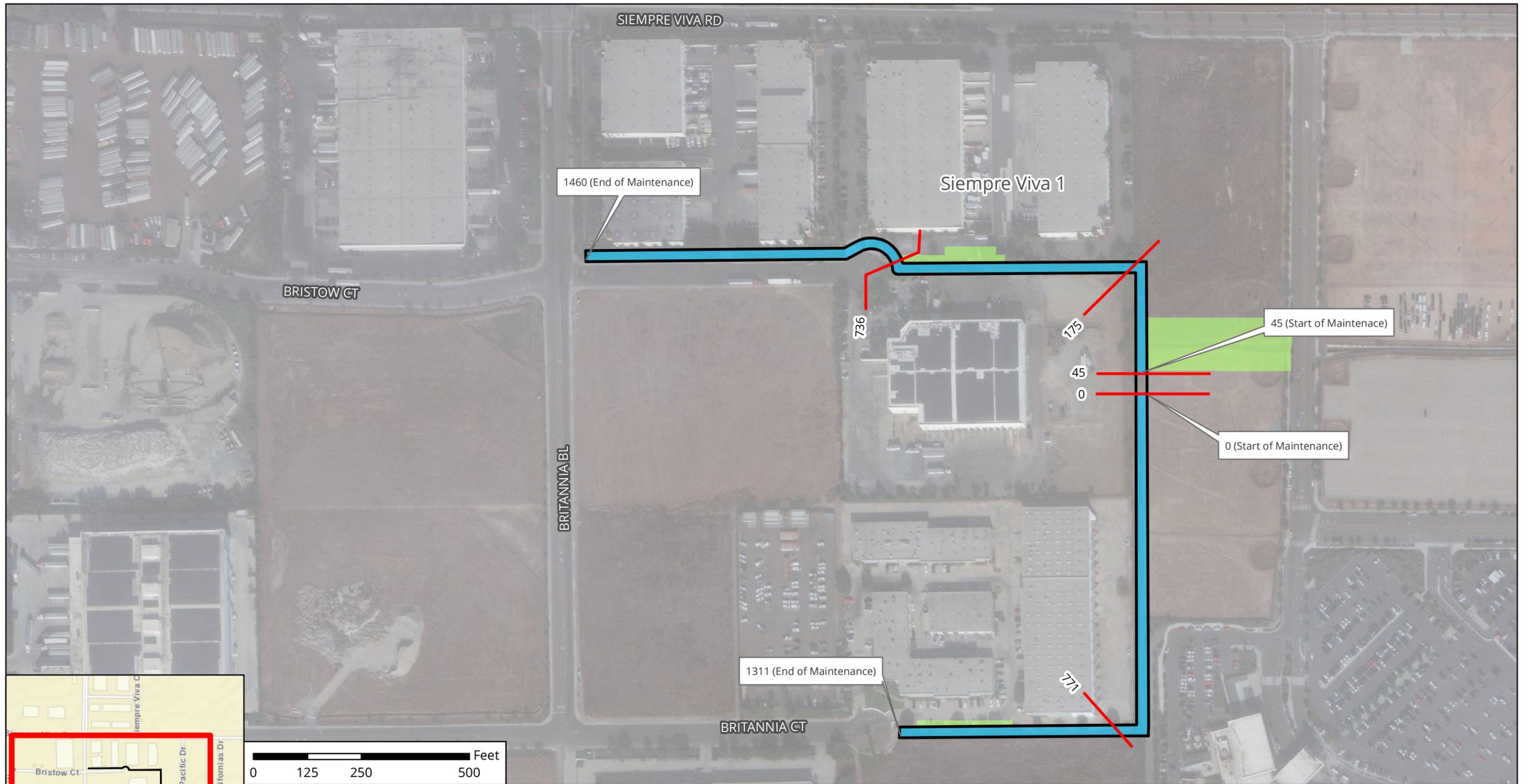
Facility Maintenance Plan

Existing Plans and/or As-Builts?	Yes; 22611-D
Substrate Detail	Earthen bottom and banks
Facility Dimensions (Approximate)	Length: 2,896 feet Top width: 30 feet Bottom width: 4–8 feet Depth: 6 feet
Authorized Facility Maintenance Area	Length: Basin: 2,711 feet; Culvert: 185 feet Width: 28 feet
Maintenance Quantities	To be determined at time of maintenance
Access/Loading/Staging/Stockpiling Area(s)	Designated areas on Map A and Smuggler's Gulch Map B or within City ROW may be used for access, loading staging, and/or stockpiling. The boundaries of these areas may also be modified as long as changes do not result in new significant environmental impacts.
Equipment	Bulldozer/track-steer, Gradall/excavator, dump truck, trash pump, sweeper
Schedule	Up to approximately 20–30 working days
Maintenance Crew	Approximately 8–16 people
Routine Maintenance Procedures	<ol style="list-style-type: none"> 1. Bulldozer/track-steer enters basin at access/loading area 2. Bulldozer/track-steer pushes material to Gradall/excavator at access/loading area 3. Gradall/excavator scoops material from basin and loads dump truck 4. Dump truck hauls material to legal disposal site
Traffic Control	No
Additional Maintenance Information	
Pre-Maintenance Meeting	<p>Prior to the start of any maintenance activity, a qualified specialist(s) shall conduct the following on site:</p> <ol style="list-style-type: none"> 1. Review sensitive biological, historical, and water quality resources; if present, flag/delineate 2. Conduct appropriate training 3. Review Best Management Practices (BMP) installation 4. If needed, review pre- and during-maintenance pumping procedure 5. Conduct pre-maintenance site photo documentation
Biology	<p>Suitable habitat for sensitive species³:</p> <ol style="list-style-type: none"> 1. Within maintenance area: Yes 2. Adjacent to maintenance area: Yes, limited suitable habitat present <p>Activities to be conducted under authority of a qualified biologist:</p> <ol style="list-style-type: none"> 1. Nesting bird surveys required within 72 hours of the start of vegetation clearing from February 1 through September 15 2. Ensure adequate implementation of Shot Hole Borer beetle procedures in accordance with current guidelines, if necessary

³ Species covered under the Multiple Species Conservation Program, other special-status species, including raptors

Tijuana River - Siempre Viva Facility Group Facility Maintenance Plan

Flow Management	As needed: <ol style="list-style-type: none"> 1. Vactor or pump standing water from facility 2. Install temporary dry-weather flow-diversion berm(s) across facility (upstream and downstream of maintenance area) 3. Position vactor/pump to capture any incoming or contained flows 4. If pumping water through temporary hose(s) to location(s) downstream, allow for distributed discharge and infiltration
Downstream Sensitive Waters	Yes; implement BMPs per Water Pollution Control Plan
BMP Installation	See Water Pollution Control Plan
In-Stream Post-Maintenance Erosion Control Recommendation	N/A (basin)
Post-Maintenance Procedures	Conduct post-maintenance procedures as follows: <ol style="list-style-type: none"> 1. Demobilize equipment 2. Restore temporary access/loading areas to pre-maintenance condition or as required by the WPCP for final stabilization 3. Street Sweeper will sweep/clean debris from street/right-of-way/project area(s), as needed 4. Remove temporary BMPs 5. Update maintenance record 6. Conduct post-maintenance site photo documentation
Other Notes	None



Station	Access/Loading/Staging /Stockpiling Area
Facility Area	Maintenance Area



Notes:
 1. Access/Loading/Staging/Stockpiling may also occur within City ROW.
 2. Access/Loading/Staging/Stockpiling may be modified during implementation.
 3. Stations are approximate and may not directly correspond with facility and/or maintenance lengths.

November 2019

Map A: General Site Plan
Facility Group Name: Tijuana River - Siempre Viva
Segment Name: Siempre Viva 1
Facility No: 6-05-110
Facility Maintenance Plan
Municipal Waterways Maintenance Plan



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USGS, AeroGRID, IGN, the GIS User Community, SanGIS, and the City of San Diego.

APPENDIX A-3
Structure FMPs

Facility Maintenance Plan

Facility Name:

10405 Sorrento Valley Road

IAMFLOC:

#HW04220



10405 Sorrento Valley Road (Drain ID: #HW04220)

Facility Maintenance Plan

Detail

Watershed Management Area (WMA)	Los Peñasquitos
Hydrologic Subarea	906.10
Drainage Name	Soledad/Carroll Canyon
Tributaries (listed from downstream to upstream)	No named tributaries
Location Within Watershed	Draining to lower reach of Soledad Canyon Creek, immediately upstream of Soledad Canyon Creek (Roselle Segment 1)
Location	Nearest Intersection: Sorrento Valley Road and Carroll Canyon Road
Adjacent Land Use	Industrial, Office, Open Space, Transportation, Vacant
Coastal Zone	CST-APP, N-APP-1
Structure Type	Inlet
Structure Detail	Culvert entrance
Pipe Diameter and Material	48 inches reinforced concrete pipe
Pipe Length	136 feet
IAMFLOC	#HW04220
SAP ID	SS-025270
Equipment ID	80049573
GIS ID	DS050012
Other Identifiers	None
As-built Drawing Number	22551-4-D



Figure 1: July 2017, photo of 10405 Sorrento Valley Road



Figure 2: Vicinity Map of 10405 Sorrento Valley Road

10405 Sorrento Valley Road (Drain ID: #HW04220)

Facility Maintenance Plan

Facility Maintenance History

This section describes previous facility maintenance, regulatory approvals, and mitigation.

History of Maintenance	Prior to 2011: Unknown January 2011 – March 2017: No maintenance conducted
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Past Regulatory Approvals

CEQA None

CDP None

SDP None

404 None

401 None

1602 None

Mitigation for Previous Impacts	No
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Hydrology and Hydraulics Summary

This section describes the current conditions in the facility, recommended maintenance, and the potential for erosion following maintenance.

Current Conditions Affecting Facility Capacity	The inlet is a headwall structure with approximately 0.5 feet of sediment and debris deposition. A large piece of construction debris is located near culvert entrance.
---	---

Maintenance Recommendation	Recommend removal of construction debris and sediment and rock debris at the culvert entrance
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In-Stream Post-Maintenance Erosion Control Recommendation	No
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10405 Sorrento Valley Road (Drain ID: #HW04220)

Facility Maintenance Plan

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses and notes to illustrate special habitat and wildlife.

Facility Vegetation	<ul style="list-style-type: none"> • Coastal sage scrub (Baccharis-dominated)
Adjacent Vegetation	<ul style="list-style-type: none"> • Coastal sage scrub (Baccharis-dominated) • Developed land • Disturbed coastal sage scrub • Disturbed land • Eucalyptus woodland • Ornamental vegetation • Riparian forest
Habitat and Wildlife	There is limited suitable habitat contained within the facility for wildlife. However, raptors could use the tall ornamental vegetation or riparian forest present adjacent to the facility across Sorrento Valley Road for nesting/roosting. In addition, other sensitive bird species (e.g., least Bell's vireo) could occur in riparian forest habitat adjacent to the channel across Sorrento Valley Road.
MHPA	The facility is not within or adjacent to the Multi-Habitat Planning Area (MHPA). The nearest MHPA boundary is located approximately 250 feet west of the structure.
Mitigation Within Facility	None

Water Quality Resource Summary

Los Peñasquitos Watershed Management Area; Hydrologic Subarea 906.10

Adopted TMDLs	Los Peñasquitos Lagoon sedimentation and siltation, Bacteria Project I
Highest Priority Water Quality Condition	Bacteria, sediment (wet weather), freshwater discharges (dry weather)

N/A	
Beneficial Uses	
303(d) listed Impairments	No impairments recorded on the 303(d) List

Soledad Canyon Creek (First downstream water body)

Beneficial Uses	<ul style="list-style-type: none"> • Agricultural Supply (AGR) • Industrial Service Supply (IND) • Non-contact Water Recreation (REC-2) • Warm Freshwater Habitat (WARM) • Cold Freshwater Habitat (COLD) • Wildlife Habitat (WILD)
303(d) listed Impairments	Sediment Toxicity, Selenium

10405 Sorrento Valley Road (Drain ID: #HW04220)
Facility Maintenance Plan

Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources

Resource Identified in APE	P-37-004609
Resource Identified Adjacent to APE	None
Resource Type	Prehistoric village

Historical Resources

Resource Identified in APE	None
Potential Historical Resources	None
Constrain Identified	

10405 Sorrento Valley Road (Drain ID: #HW04220)
Facility Maintenance Plan

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-2
EP-BIO-6	MM-BIO-3
Health and Safety/Hazards (HAZ)	MM-BIO-4
EP-HAZ-3	MM-BIO-5
Solid Waste (SW)	MM-BIO-6
EP-SW-2	MM-BIO-7
EP-SW-3	Historic, Archaeological, and Tribal Cultural Resources (HR and CR)
EP-SW-4	MM-CR-1
EP-SW-5	MM-CR-2
EP-SW-6	MM-CR-3
EP-SW-7	MM-CR-4
EP-SW-8	Noise (NOI)
Water Quality (WQ)	MM-NOI-1
EP-WQ-1	

10405 Sorrento Valley Road (Drain ID: #HW04220)
Facility Maintenance Plan

Maintenance Methods

This section describes the specific activities, equipment, and methodology for maintenance of this facility including a general site plan (Map A). It is intended to be used as a guide for the maintenance crew.

Structure Name	10405 Sorrento Valley Road
Coastal Zone	CST-APP, N-APP-1
MWMP Proposed Maintenance	Maintenance of structure per as-built dimensions and Hydrology and Hydraulics Recommendation
Hydrology and Hydraulics Recommendation	Recommend removal of construction debris and sediment and rock debris at the culvert entrance
Maintenance Activities	Vegetation grubbing, trimming, and removal Invasive plant species treatment and removal Sediment removal Concrete repair
Maintenance Method	Excavation; mechanized equipment outside of facility Temporary access/loading Temporary staging Temporary diversions Hand removal of vegetation
Bank Repair	No
Concrete Repair	Yes; see Appendix A-4
Concrete/Gabion Structure Repair and Maintenance	No
Culvert Maintenance	Yes; see Appendix A-4
Post-Maintenance Erosion Control Recommendation	No
Trash/Debris Fence Repair and Maintenance	No
Structure Type	Inlet
Existing Plans and/or As-Built?	Yes; 22551-4-D
Structure Size	48 inches
Structure Detail	Culvert entrance
Maintenance Area Substrate	Earthen and riprap
Authorized Facility Maintenance Area	Length: 38 feet Width: 12 feet
Maintenance Quantities	To be determined at time of maintenance
Access/Loading/Staging/Stockpiling Area(s)	Designated areas on Map A or within City ROW may be used for access, loading, staging, and/or stockpiling. The boundaries of these areas may also be modified as long as changes do not result in new significant environmental impacts.
Equipment	Gradall/excavator, loader, dump truck, vactor, fuel-powered hand tools
Schedule	Up to approximately 1–3 working days
Maintenance Crew	Approximately 8–10 people

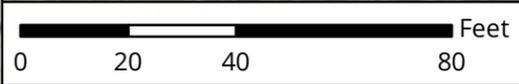
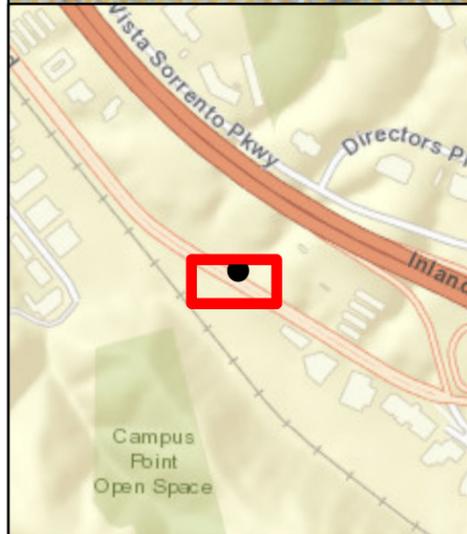
10405 Sorrento Valley Road (Drain ID: #HW04220)
Facility Maintenance Plan

Routine Maintenance Procedures	Conduct maintenance procedures as follows: 1. Workers enter facility at access/loading area 2. Workers use fuel-powered hand tools to clear vegetation and prepare concrete debris for removal 3. Gradall/excavator and loader at access/loading area remove material from facility and load dump trucks 4. Dump trucks haul material to legal disposal site
Traffic Control	No
Additional Maintenance Information	
Pre-Maintenance Meeting	Prior to the start of any maintenance activity, a qualified specialist shall conduct the following on site: 1. Review sensitive biological/historical/water quality resources; if present flag/delineate 2. Conduct appropriate training 3. Review BMP installation 4. If needed, review pre- and during-maintenance pumping procedures 5. Conduct pre-maintenance site photo documentation
Biology	Suitable habitat for sensitive species ¹ : 1. Within maintenance area: Yes, limited suitable habitat present 2. Adjacent to maintenance area: Yes Activities to be conducted under authority of a qualified biologist: 1. Nesting bird surveys required within 72 hours of the start of vegetation clearing from February 1 through September 15
Flow Management	As needed: 1. Vactor or pump standing water from facility 2. Install temporary dry-weather flow-diversion berm(s) across facility (upstream and downstream of maintenance area) 3. Position vactor/pump to capture any incoming or contained flows 4. If pumping water through temporary hose(s) to location(s) downstream, allow for distributed discharge and infiltration
Downstream Sensitive Waters	Yes; implement BMPs per Water Pollution Control Plan
BMP Installation	See Water Pollution Control Plan
In-Stream Post-Maintenance Erosion Control Recommendation	No

¹ Species covered under the Multiple Species Conservation Program, other special-status species, including raptors.

10405 Sorrento Valley Road (Drain ID: #HW04220)
Facility Maintenance Plan

Post-Maintenance Procedures	Conduct post-maintenance procedures as follows: <ol style="list-style-type: none">1. Demobilize equipment2. Restore temporary access/loading areas to pre-maintenance condition or as required by the WPCP for final stabilization3. Street Sweeper will sweep/clean debris from street/right-of-way/project area(s), as needed4. Remove temporary BMPs5. Update maintenance record6. Conduct post-maintenance site photo documentation
Other Notes	None



- Drain Structure
- ▭ Access/Loading/Staging/Stockpiling Area
- ▨ Coastal Zone
- ▨ Multi-Habitat Planning Area
- ▭ Maintenance Area

Notes:
 1. Concrete repair may occur within this facility area.
 2. Access/Loading/Staging/Stockpiling may also occur within City ROW.
 3. Access/Loading/Staging/Stockpiling may be modified during implementation



November 2019

Map A: General Site Plan
Structure Name: 10405 Sorrento Valley Road
IAMFLOC: #HW04220
Facility Maintenance Plan
Municipal Waterways Maintenance Plan



Facility Maintenance Plan

Facility Name:

1331 Washington

IAMFLOC:

#OT03537



1331 Washington (Drain ID: #OT03537)

Facility Maintenance Plan

Detail

Watershed Management Area (WMA)	San Diego River
Hydrologic Subarea	907.11
Drainage Name	Mission Valley South
Tributaries (listed from downstream to upstream)	No named tributaries
Location Within Watershed	Draining to San Diego River
Location	Nearest Intersection: Washington Street and Pascoe Street
Adjacent Land Use	Commercial, Multi-Family Residential, Single Family Residential, Transportation, Vacant
Coastal Zone	No
Structure Type	Outlet
Structure Detail	None
Pipe Diameter and Material	24 inches reinforced concrete pipe
Pipe Length	188 feet
IAMFLOC	#OT03537
SAP ID	SS-028300
Equipment ID	80027216
GIS ID	DS026277
Other Identifiers	None
As-built Drawing Number	6201-12-R



Figure 1: July 2017, photo of 1331 Washington

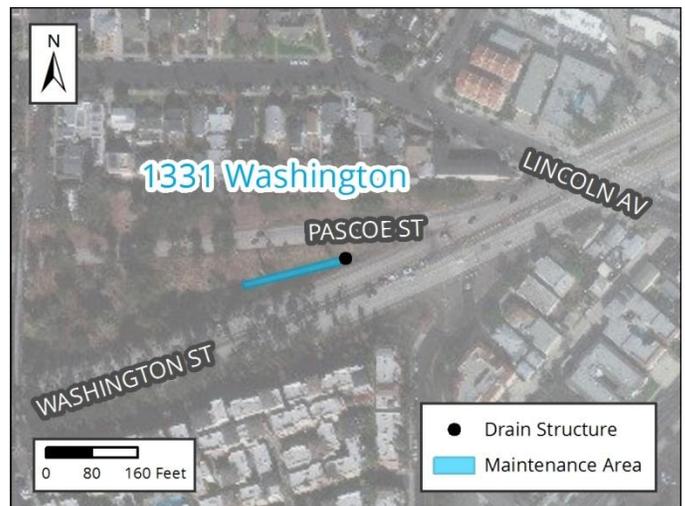


Figure 2: Vicinity Map of 1331 Washington

1331 Washington (Drain ID: #OT03537)

Facility Maintenance Plan

Facility Maintenance History

This section describes previous facility maintenance, regulatory approvals, and mitigation.

History of Maintenance	Prior to 2011: Unknown January 2011 – March 2019: No maintenance conducted
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Past Regulatory Approvals

CEQA None

CDP N/A

SDP None

404 None

401 None

1602 None

Mitigation for Previous Impacts	No
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Hydrology and Hydraulics Summary

This section describes the current conditions in the facility, recommended maintenance, and the potential for erosion following maintenance.

Current Conditions Affecting Facility Capacity	Vegetation (ice plant and a palm tree) is growing in the ditch and near the outlet. Large debris (fallen palm trees) partially blocking the ditch.
---	--

Maintenance Recommendation	Recommend trimming the vegetation out of the concrete ditch, removing palm trees from within the ditch, and removing the fallen trees. Backfill voids under concrete structure to ensure structural integrity or stability.
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In-Stream Post-Maintenance Erosion Control Recommendation	Subject to further analysis to determine need and type
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1331 Washington (Drain ID: #OT03537)

Facility Maintenance Plan

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses and notes to illustrate special habitat and wildlife.

Facility Vegetation	<ul style="list-style-type: none"> Developed concrete-lined channel
Adjacent Vegetation	<ul style="list-style-type: none"> Developed land Disturbed wetland (palm-dominated) Eucalyptus woodland Natural flood channel Ornamental vegetation
Habitat and Wildlife	There is limited suitable habitat contained within the facility for wildlife. However, raptors could use the eucalyptus woodland present adjacent to the facility for nesting/roosting.
MHPA	The facility is not within or adjacent to the Multi-Habitat Planning Area (MHPA). The nearest MHPA boundary is located approximately 700 feet north of the structure.
Mitigation Within Facility	None

Water Quality Resource Summary

San Diego River Watershed Management Area; Hydrologic Subarea 907.11

Adopted TMDLs	Bacteria Project I
Highest Priority Water Quality Condition	Bacteria

N/A

Beneficial Uses	
303(d) listed Impairments	No impairments recorded on the 303(d) List

San Diego River (First downstream water body)

Beneficial Uses	<ul style="list-style-type: none"> Agricultural Supply (AGR) Industrial Service Supply (IND) Contact Water Recreation (REC-1) Non-contact Water Recreation (REC-2) Preservation of Biological Habitats of Special Significance (BIOL) Warm Freshwater Habitat (WARM) Wildlife Habitat (WILD) Preservation of Rare and Endangered Species (RARE)
303(d) listed Impairments	Benthic Community Effects, Cadmium, Indicator Bacteria, Nitrogen, Oxygen, Dissolved, Phosphorus, Total Dissolved Solids, Toxicity

1331 Washington (Drain ID: #OT03537)
Facility Maintenance Plan

Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources

Resource Identified in APE	None
Resource Identified Adjacent to APE	None
Resource Type	N/A

Historical Resources

Resource Identified in APE	Facility; 1947 structural facility
Potential Historical Resources	Yes
Constrain Identified	

1331 Washington (Drain ID: #OT03537)
Facility Maintenance Plan

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-2
EP-BIO-6	Historic, Archaeological, and Tribal Cultural Resources (HR and CR)
Health and Safety/Hazards (HAZ)	MM-HR-1
EP-HAZ-3	MM-HR-2
Hydrology (HYD)	Noise (NOI)
EP-HYD-1	MM-NOI-1
Solid Waste (SW)	
EP-SW-2	
EP-SW-3	
EP-SW-4	
EP-SW-5	
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

1331 Washington (Drain ID: #OT03537)

Facility Maintenance Plan

Maintenance Methods

This section describes the specific activities, equipment, and methodology for maintenance of this facility including a general site plan (Map A). It is intended to be used as a guide for the maintenance crew.

Structure Name	1331 Washington
Coastal Zone	No
MWMP Proposed Maintenance	Maintenance of structure per as-built dimensions and Hydrology and Hydraulics Recommendation
Hydrology and Hydraulics Recommendation	Recommend trimming the vegetation out of the concrete ditch, removing palm trees from within the ditch, and removing the fallen trees. Backfill voids under concrete structure to ensure structural integrity or stability.
Maintenance Activities	Vegetation grubbing, trimming, and removal Invasive plant species treatment and removal Sediment removal Concrete repair
Maintenance Method	Excavation; mechanized equipment outside of facility Temporary access/loading Temporary staging Temporary diversions Hand removal of vegetation
Bank Repair	No
Concrete Repair	Yes; see Appendix A-4
Concrete/Gabion Structure Repair and Maintenance	No
Culvert Maintenance	No
Post-Maintenance Erosion Control Recommendation	Subject to further analysis to determine need and type
Trash/Debris Fence Repair and Maintenance	No
Structure Type	Outlet
Existing Plans and/or As-Builts?	Yes; 6201-12-R
Structure Size	24 inches
Structure Detail	None
Maintenance Area Substrate	Concrete
Authorized Facility Maintenance Area	Length: 186 feet Width: 12 feet
Maintenance Quantities	To be determined at time of maintenance
Access/Loading/Staging/Stockpiling Area(s)	Designated areas on Map A or within City ROW may be used for access, loading, staging, and/or stockpiling. The boundaries of these areas may also be modified as long as changes do not result in new significant environmental impacts.
Equipment	Bobcat/skid-steer, Gradall/excavator, loader, backhoe, dump truck, vactor, fuel-powered hand tools

1331 Washington (Drain ID: #OT03537)

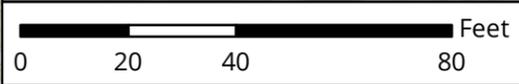
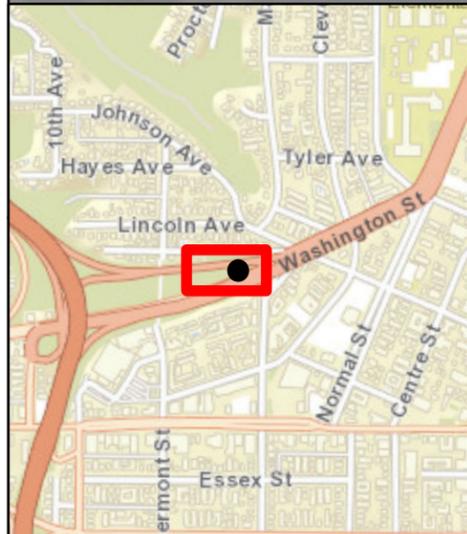
Facility Maintenance Plan

Schedule	Up to approximately 5 working days
Maintenance Crew	Approximately 8-10 people
Routine Maintenance Procedures	Conduct maintenance procedures as follows: 1. Gradall/excavator at access/loading area scoops material and removes palms from facility and loads dump trucks 2. Dump trucks haul material to legal disposal site
Traffic Control	Yes; coordinate with Caltrans and City of San Diego
Additional Maintenance Information	
Pre-Maintenance Meeting	Prior to the start of any maintenance activity, a qualified specialist shall conduct the following on site: 1. Review sensitive biological/historical/water quality resources; if present flag/delineate 2. Conduct appropriate training 3. Review BMP installation 4. If needed, review pre- and during-maintenance pumping procedures 5. Conduct pre-maintenance site photo documentation
Biology	Suitable habitat for sensitive species ¹ : 1. Within maintenance area: Yes, limited suitable habitat present 2. Adjacent to maintenance area: Yes Activities to be conducted under authority of a qualified biologist: 1. Nesting bird surveys required within 72 hours of the start of vegetation clearing from February 1 through September 15
Flow Management	As needed: 1. Vactor or pump standing water from facility 2. Install temporary dry-weather flow-diversion berm(s) across facility (upstream and downstream of maintenance area) 3. Position vactor/pump to capture any incoming or contained flows 4. If pumping water through temporary hose(s) to location(s) downstream, allow for distributed discharge and infiltration
Downstream Sensitive Waters	Yes; implement BMPs per Water Pollution Control Plan
BMP Installation	See Water Pollution Control Plan
In-Stream Post-Maintenance Erosion Control Recommendation	Subject to further analysis to determine need and type

¹ Species covered under the Multiple Species Conservation Program, other special-status species, including raptors.

1331 Washington (Drain ID: #OT03537)
Facility Maintenance Plan

Post-Maintenance Procedures	Conduct post-maintenance procedures as follows: <ol style="list-style-type: none">1. Demobilize equipment2. Restore temporary access/loading areas to pre-maintenance condition or as required by the WPCP for final stabilization3. Street Sweeper will sweep/clean debris from street/right-of-way/project area(s), as needed4. Remove temporary BMPs5. Update maintenance record6. Conduct post-maintenance site photo documentation
Other Notes	None



● Drain Structure	■ Access/Loading/Staging/Stockpiling Area
	■ Maintenance Area



Notes:
 1. Concrete repair may occur within this facility area.
 2. Access/Loading/Staging/Stockpiling may also occur within City ROW.
 3. Access/Loading/Staging/Stockpiling may be modified during implementation.

November 2019

Map A: General Site Plan
Structure Name: 1331 Washington
IAMFLOC: #OT03537
Facility Maintenance Plan
Municipal Waterways Maintenance Plan



Facility Maintenance Plan

Facility Name:

1277 Camino del Rio South

IAMFLOC:

#IN10399



1277 Camino del Rio South (Drain ID: #IN10399)

Facility Maintenance Plan

Detail

Watershed Management Area (WMA)	San Diego River
Hydrologic Subarea	907.11
Drainage Name	Mission Valley South
Tributaries (listed from downstream to upstream)	San Diego River Unnamed Tributary
Location Within Watershed	Draining to lower reach of San Diego River unnamed tributary, upstream of San Diego River unnamed tributary (Camino del Rio)
Location	Nearest Intersection: Camino del Rio S and Mission Center Road; access behind Chuze Fitness
Adjacent Land Use	Commercial, Office, Open Space, Single Family Residential, Transportation, Vacant
Coastal Zone	No
Structure Type	Inlet
Structure Detail	Culvert entrance
Pipe Diameter and Material	30 inches reinforced concrete pipe
Pipe Length	212 feet
IAMFLOC	#IN10399
SAP ID	SS-005783
Equipment ID	80038052
GIS ID	DS023923
Other Identifiers	Corner of 1277 Camino del Rio S (Chuze Fitness - Hotel Circle South)
As-built Drawing Number	12290-2-D

1277 Camino del Rio South (Drain ID: #IN10399) Facility Maintenance Plan



Figure 1: July 2017, photo of 1277 Camino del Rio South



Figure 2: Vicinity Map of 1277 Camino del Rio South

1277 Camino del Rio South (Drain ID: #IN10399)

Facility Maintenance Plan

Facility Maintenance History

This section describes previous facility maintenance, regulatory approvals, and mitigation.

History of Maintenance	Prior to 2016: Unknown April 2016: Vegetation trimming conducted April 2017: Minor maintenance conducted
-------------------------------	--

Past Regulatory Approvals

CEQA None

CDP N/A

SDP None

404 None

401 None

1602 None

Mitigation for Previous Impacts	No
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Hydrology and Hydraulics Summary

This section describes the current conditions in the facility, recommended maintenance, and the potential for erosion following maintenance.

Current Conditions Affecting Facility Capacity	The engineered concrete inlet is a concrete-drop-type structure with some sediment, vegetation, and debris accumulation. There is evidence of erosion on either side of the drop structure, with a major cavitation on the left side. It appears some of the runoff goes into the parking lot and not the drop structure.
---	---

Maintenance Recommendation	Recommend to remove sediment debris, and vegetation from drop structure. Further studies are recommended to investigate the cause of the erosion near the structure.
-----------------------------------	--

In-Stream Post-Maintenance Erosion Control Recommendation	No
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1277 Camino del Rio South (Drain ID: #IN10399)

Facility Maintenance Plan

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses and notes to illustrate special habitat and wildlife.

Facility Vegetation	<ul style="list-style-type: none">• Developed concrete-lined channel
Adjacent Vegetation	<ul style="list-style-type: none">• Chaparral• Coastal sage scrub• Developed land• Ornamental vegetation
Habitat and Wildlife	The structure area itself does not contain suitable vegetation for sensitive wildlife, however suitable habitat is present in the areas surrounding the facility for sensitive bird species, such as coastal California gnatcatcher
MHPA	The facility is adjacent to the Multi-Habitat Planning Area (MHPA). The nearest MHPA boundary is located approximately 20 feet south of the structure.
Mitigation Within Facility	None

Water Quality Resource Summary

San Diego River Watershed Management Area; Hydrologic Subarea 907.11

Adopted TMDLs Bacteria Project I

Highest Priority Water Quality Condition Bacteria

N/A

Beneficial Uses

303(d) listed Impairments No impairments recorded on the 303(d) List

San Diego River (First downstream water body)

Beneficial Uses

- Agricultural Supply (AGR)
- Industrial Service Supply (IND)
- Contact Water Recreation (REC-1)
- Non-contact Water Recreation (REC-2)
- Preservation of Biological Habitats of Special Significance (BIOL)
- Warm Freshwater Habitat (WARM)
- Wildlife Habitat (WILD)
- Preservation of Rare and Endangered Species (RARE)

303(d) listed Impairments Benthic Community Effects, Cadmium, Indicator Bacteria, Nitrogen, Oxygen, Dissolved, Phosphorus, Total Dissolved Solids, Toxicity

1277 Camino del Rio South (Drain ID: #IN10399)
Facility Maintenance Plan

Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources

Resource Identified in APE	None
Resource Identified Adjacent to APE	P-37-011055
Resource Type	Prehistoric hearth and artifact scatter

Historical Resources

Resource Identified in APE	Facility; c. 1966–1974 structural facility
Potential Historical Resources	Yes
Constrain Identified	

1277 Camino del Rio South (Drain ID: #IN10399)
Facility Maintenance Plan

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-2
EP-BIO-6	MM-BIO-3
Health and Safety/Hazards (HAZ)	MM-BIO-4
EP-HAZ-3	MM-BIO-6
Land Use (LU)	MM-BIO-7
EP-LU-1	Historic, Archaeological, and Tribal Cultural Resources (HR and CR)
Solid Waste (SW)	MM-HR-1
EP-SW-2	MM-HR-2
EP-SW-3	Noise (NOI)
EP-SW-4	MM-NOI-1
EP-SW-5	
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

1277 Camino del Rio South (Drain ID: #IN10399)

Facility Maintenance Plan

Maintenance Methods

This section describes the specific activities, equipment, and methodology for maintenance of this facility including a general site plan (Map A). It is intended to be used as a guide for the maintenance crew.

Structure Name	1277 Camino del Rio South
Coastal Zone	No
MWMP Proposed Maintenance	Maintenance of structure per as-built dimensions and Hydrology and Hydraulics Recommendation
Hydrology and Hydraulics Recommendation	Recommend to remove sediment debris, and vegetation from drop structure. Further studies are recommended to investigate the cause of the erosion near the structure.
Maintenance Activities	Vegetation grubbing, trimming, and removal Invasive plant species treatment and removal Sediment removal Concrete repair
Maintenance Method	Excavation; mechanized equipment outside of facility Temporary access/loading Temporary staging Temporary diversions Hand removal of vegetation
Bank Repair	No
Concrete Repair	Yes; see Appendix A-4
Concrete/Gabion Structure Repair and Maintenance	No
Culvert Maintenance	Yes; see Appendix A-4
Post-Maintenance Erosion Control Recommendation	No
Trash/Debris Fence Repair and Maintenance	Yes; see Appendix A-4
Structure Type	Inlet
Existing Plans and/or As-Builts?	Yes; 12290-2-D
Structure Size	30 inches
Structure Detail	Culvert entrance
Maintenance Area Substrate	Concrete
Authorized Facility Maintenance Area	Length: 11 feet Width: 13–22 feet
Maintenance Quantities	To be determined at time of maintenance
Access/Loading/Staging/Stockpiling Area(s)	Designated areas on Map A or within City ROW may be used for access, loading, staging, and/or stockpiling. The boundaries of these areas may also be modified as long as changes do not result in new significant environmental impacts.
Equipment	Bobcat/skid-steer, Gradall/excavator, loader, backhoe, dump truck, vactor, fuel-powered hand tools

1277 Camino del Rio South (Drain ID: #IN10399)

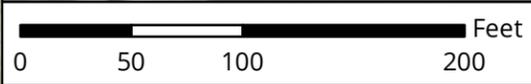
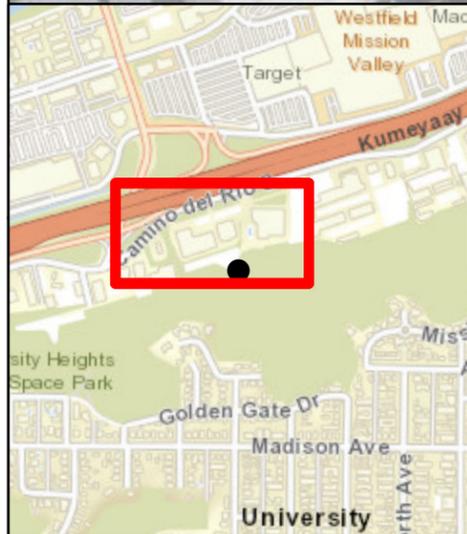
Facility Maintenance Plan

Schedule	Up to approximately 2–3 working days
Maintenance Crew	Approximately 8–10 people
Routine Maintenance Procedures	<p>Conduct maintenance procedures as follows:</p> <ol style="list-style-type: none"> 1. Gradall/excavator or backhoe will be stationed above structure in access/loading area 2. Gradall/excavator or backhoe will scoop material from structure and load into dump trucks 3. Vactor stationed above structure in access/loading area assists removing material 4. Workers enter facility at access/loading area 5. Workers assist removing material using hand tools 6. Dump trucks and vactor haul material to legal disposal site
Traffic Control	No
Additional Maintenance Information	
Pre-Maintenance Meeting	<p>Prior to the start of any maintenance activity, a qualified specialist shall conduct the following on site:</p> <ol style="list-style-type: none"> 1. Review sensitive biological/historical/water quality resources; if present flag/delineate 2. Conduct appropriate training 3. Review BMP installation 4. If needed, review pre- and during-maintenance pumping procedures 5. Conduct pre-maintenance site photo documentation
Biology	<p>Suitable habitat for sensitive species¹:</p> <ol style="list-style-type: none"> 1. Within maintenance area: No 2. Adjacent to maintenance area: Yes <p>Activities to be conducted under authority of a qualified biologist:</p> <ol style="list-style-type: none"> 1. Nesting bird surveys required within 72 hours of the start of vegetation clearing from February 1 through September 15
Flow Management	<p>As needed:</p> <ol style="list-style-type: none"> 1. Vactor or pump standing water from facility 2. Install temporary dry-weather flow-diversion berm(s) across facility (upstream and downstream of maintenance area) 3. Position vactor/pump to capture any incoming or contained flows 4. If pumping water through temporary hose(s) to location(s) downstream, allow for distributed discharge and infiltration
Downstream Sensitive Waters	Yes; implement BMPs per Water Pollution Control Plan
BMP Installation	See Water Pollution Control Plan
In-Stream Post-Maintenance Erosion Control Recommendation	No

¹ Species covered under the Multiple Species Conservation Program, other special-status species, including raptors.

1277 Camino del Rio South (Drain ID: #IN10399)
Facility Maintenance Plan

Post-Maintenance Procedures	Conduct post-maintenance procedures as follows: <ol style="list-style-type: none">1. Demobilize equipment2. Restore temporary access/loading areas to pre-maintenance condition or as required by the WPCP for final stabilization3. Street Sweeper will sweep/clean debris from street/right-of-way/project area(s), as needed4. Remove temporary BMPs5. Update maintenance record6. Conduct post-maintenance site photo documentation
Other Notes	None



- Drain Structure
- Access/Loading/Staging /Stockpiling Area
- Multi-Habitat Planning Area
- Maintenance Area



Notes:
 1. Concrete repair may occur within this facility area.
 2. Access/Loading/Staging/Stockpiling may also occur within City ROW.
 3. Access/Loading/Staging/Stockpiling may be modified during implementation.



November 2019

Map A: General Site Plan
Structure Name: 1277 Camino Del Rio South
IAMFLOC: #IN10399
Facility Maintenance Plan
Municipal Waterways Maintenance Plan



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USGS, AeroGRID, IGN, the GIS User Community, SanGIS, and the City of San Diego.

Facility Maintenance Plan

Facility Name:

5505 Friars Road

IAMFLOC:

#OT05573



5505 Friars Road (Drain ID: #OT05573)

Facility Maintenance Plan

Detail

Watershed Management Area (WMA)	San Diego River
Hydrologic Subarea	907.11
Drainage Name	Mission Valley North
Tributaries (listed from downstream to upstream)	No named tributaries
Location Within Watershed	Draining to San Diego River
Location	Nearest Intersection: Friars Road and Colusa Street
Adjacent Land Use	Commercial, Industrial, Multi-Family Residential, Office, Open Space, Parks, Public Facilities and Utilities, Transportation
Coastal Zone	No
Structure Type	Outlet
Structure Detail	Headwall
Pipe Diameter and Material	36 inches reinforced concrete pipe
Pipe Length	492 feet
IAMFLOC	#OT05573
SAP ID	SS-011513
Equipment ID	80038074
GIS ID	DS024014
Other Identifiers	Friars and Colusa
As-built Drawing Number	17923-7-D



Figure 1: July 2017, photo of 5505 Friars Road



Figure 2: Vicinity Map of 5505 Friars Road

5505 Friars Road (Drain ID: #OT05573)

Facility Maintenance Plan

Facility Maintenance History

This section describes previous facility maintenance, regulatory approvals, and mitigation.

History of Maintenance	Prior to 2011: Unknown 2015 and 2016: Emergency maintenance conducted
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Past Regulatory Approvals

CEQA	NOE: Emergency Project No. 477023
CDP	N/A
SDP	Emergency Permit No. 1670498
404	RGP 63 (SPL-2016-00039-MG)
401	RGP 63 Verification No. R9-2016-0024:820968
1602	LSA Emergency Notification

Mitigation for Previous Impacts	Sefton Field/Pueblo Lot 1102 (0.11 acre)
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Hydrology and Hydraulics Summary

This section describes the current conditions in the facility, recommended maintenance, and the potential for erosion following maintenance.

Current Conditions Affecting Facility Capacity	The outlet is a headwall structure with 1 to 2 feet of sediment and debris deposition at the headwall. Previously placed riprap was not visible due to the sediment and debris deposition. It appears that the sediment deposition is also creating a plug downstream of the outlet. Large vegetation regrowth is occurring with in the previously maintained portion of the outlet.
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Maintenance Recommendation	Recommend to remove sediment for an approximately 50 foot length to restore previous maintenance area and allow the outlet to drain
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In-Stream Post-Maintenance Erosion Control Recommendation	As-built includes a riprap energy dissipator at the outlet. Additional analysis is needed to determine if the as-built condition reduces velocities below permissible levels.
--	---

5505 Friars Road (Drain ID: #OT05573)
Facility Maintenance Plan

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses and notes to illustrate special habitat and wildlife.

Facility Vegetation	<ul style="list-style-type: none">• Disturbed wetland (Arundo-dominated)
Adjacent Vegetation	<ul style="list-style-type: none">• Coastal sage scrub (Baccharis-dominated)• Developed land• Disturbed land• Disturbed wetland• Disturbed wetland (Arundo-dominated)• Eucalyptus woodland• Ornamental vegetation• Riparian forest (southern riparian forest)• Riparian forest (southern willow forest)
Habitat and Wildlife	There is limited suitable habitat contained within the facility for wildlife. However, raptors could use the eucalyptus woodland or riparian forest present adjacent to the facility for nesting/roosting. In addition, other sensitive bird species (e.g., least Bell's vireo) could occur in riparian forest (southern willow forest) habitat adjacent to the channel.
MHPA	The facility is adjacent to the Multi-Habitat Planning Area (MHPA) which is located directly west and south of the structure.
Mitigation Within Facility	Downstream areas include past and potential future compensatory mitigation areas

5505 Friars Road (Drain ID: #OT05573)
Facility Maintenance Plan

Water Quality Resource Summary

San Diego River Watershed Management Area; Hydrologic Subarea 907.11

Adopted TMDLs Bacteria Project I

Highest Priority Water Quality Condition Bacteria

N/A

Beneficial Uses

303(d) listed Impairments No impairments recorded on the 303(d) List

San Diego River (First downstream water body)

- Beneficial Uses**
- Agricultural Supply (AGR)
 - Industrial Service Supply (IND)
 - Contact Water Recreation (REC-1)
 - Non-contact Water Recreation (REC-2)
 - Preservation of Biological Habitats of Special Significance (BIOL)
 - Warm Freshwater Habitat (WARM)
 - Wildlife Habitat (WILD)
 - Preservation of Rare and Endangered Species (RARE)

303(d) listed Impairments Benthic Community Effects, Cadmium, Indicator Bacteria, Nitrogen, Oxygen, Dissolved, Phosphorus, Total Dissolved Solids, Toxicity

Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources

Resource Identified in APE None

Resource Identified Adjacent to APE None

Resource Type N/A

Historical Resources

Resource Identified in APE Facility; c. 1966–1972 structural facility

Potential Historical Resources Yes

Constrain Identified

5505 Friars Road (Drain ID: #OT05573)
Facility Maintenance Plan

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-2
EP-BIO-6	MM-BIO-4
Health and Safety/Hazards (HAZ)	MM-BIO-5
EP-HAZ-3	MM-BIO-6
Hydrology (HYD)	Historic, Archaeological, and Tribal Cultural Resources (HR and CR)
EP-HYD-1	MM-HR-1
Land Use (LU)	MM-HR-2
EP-LU-1	Noise (NOI)
Solid Waste (SW)	MM-NOI-1
EP-SW-2	
EP-SW-3	
EP-SW-4	
EP-SW-5	
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

5505 Friars Road (Drain ID: #OT05573) Facility Maintenance Plan

Maintenance Methods

This section describes the specific activities, equipment, and methodology for maintenance of this facility including a general site plan (Map A). It is intended to be used as a guide for the maintenance crew.

Structure Name	5505 Friars Road
Coastal Zone	No
MWMP Proposed Maintenance	Maintenance of structure per as-built dimensions and Hydrology and Hydraulics Recommendation
Hydrology and Hydraulics Recommendation	Recommend to remove sediment for an approximately 50 foot length to restore previous maintenance area and allow the outlet to drain
Maintenance Activities	Vegetation grubbing, trimming, and removal Invasive plant species treatment and removal Sediment removal Concrete repair
Maintenance Method	Excavation; mechanized equipment in facility Temporary access/loading Temporary staging Temporary diversions Hand removal of vegetation
Bank Repair	No
Concrete Repair	Yes; see Appendix A-4
Concrete/Gabion Structure Repair and Maintenance	No
Culvert Maintenance	Yes; see Appendix A-4
Post-Maintenance Erosion Control Recommendation	Subject to further analysis to determine need and type
Trash/Debris Fence Repair and Maintenance	No
Structure Type	Outlet
Existing Plans and/or As-Builts?	Yes; 17923-7-D
Structure Size	36 inches
Structure Detail	Headwall
Maintenance Area Substrate	Earthen
Authorized Facility Maintenance Area	Length: 50 feet Width: 17 feet
Maintenance Quantities	To be determined at time of maintenance
Access/Loading/Staging/Stockpiling Area(s)	Designated areas on Map A or within City ROW may be used for access, loading, staging, and/or stockpiling. The boundaries of these areas may also be modified as long as changes do not result in new significant environmental impacts.
Equipment	Bulldozer/track-steer, Gradall/excavator, dump truck, trash pump, vector
Schedule	Up to approximately 5 working days
Maintenance Crew	Approximately 10-15 people

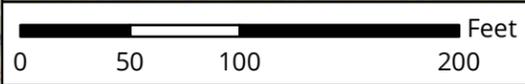
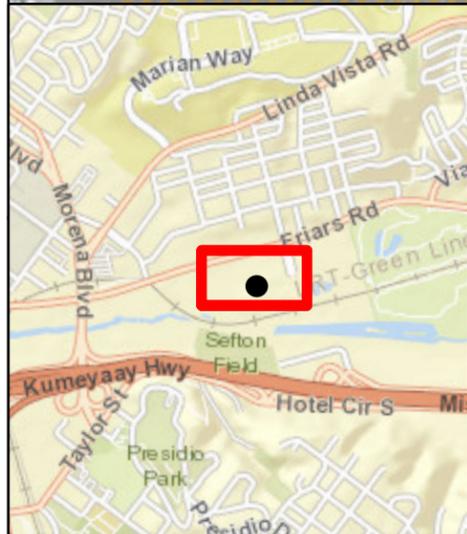
5505 Friars Road (Drain ID: #OT05573)
Facility Maintenance Plan

Routine Maintenance Procedures	Conduct maintenance procedures as follows: 1. Bulldozer/track-steer enters facility at access/loading area 2. Bulldozer/track-steer pushes material to Gradall/excavator at access/loading area 3. Gradall/excavator scoops material from facility and loads dump trucks 4. Dump trucks haul material to legal disposal site
Traffic Control	No
Additional Maintenance Information	
Pre-Maintenance Meeting	Prior to the start of any maintenance activity, a qualified specialist shall conduct the following on site: 1. Review sensitive biological/historical/water quality resources; if present flag/delineate 2. Conduct appropriate training 3. Review BMP installation 4. If needed, review pre- and during-maintenance pumping procedures 5. Conduct pre-maintenance site photo documentation
Biology	Suitable habitat for sensitive species ¹ : 1. Within maintenance area: Yes, limited suitable habitat present 2. Adjacent to maintenance area: Yes Activities to be conducted under authority of a qualified biologist: 1. Nesting bird surveys required within 72 hours of the start of vegetation clearing from February 1 through September 15
Flow Management	As needed: 1. Vactor or pump standing water from facility 2. Install temporary dry-weather flow-diversion berm(s) across facility (upstream and downstream of maintenance area) 3. Position vactor/pump to capture any incoming or contained flows 4. If pumping water through temporary hose(s) to location(s) downstream, allow for distributed discharge and infiltration
Downstream Sensitive Waters	Yes; implement BMPs per Water Pollution Control Plan
BMP Installation	See Water Pollution Control Plan
In-Stream Post-Maintenance Erosion Control Recommendation	As-built includes a riprap energy dissipator at the outlet. Additional analysis is needed to determine if the as-built condition reduces velocities below permissible levels.

¹ Species covered under the Multiple Species Conservation Program, other special-status species, including raptors.

5505 Friars Road (Drain ID: #OT05573)
Facility Maintenance Plan

Post-Maintenance Procedures	Conduct post-maintenance procedures as follows: <ol style="list-style-type: none">1. Demobilize equipment2. Restore temporary access/loading areas to pre-maintenance condition or as required by the WPCP for final stabilization3. Street Sweeper will sweep/clean debris from street/right-of-way/project area(s), as needed4. Remove temporary BMPs5. Update maintenance record6. Conduct post-maintenance site photo documentation
Other Notes	None



- Drain Structure
- ▨ Multi-Habitat Planning Area
- Access/Loading/Staging /Stockpiling Area
- Maintenance Area



Notes:
 1. Concrete repair may occur within this facility area.
 2. Access/Loading/Staging/Stockpiling may also occur within City ROW.
 3. Access/Loading/Staging/Stockpiling may be modified during implementation.

November 2019

Map A: General Site Plan
Structure Name: 5505 Friars Road
IAMFLOC: #OT05573
Facility Maintenance Plan
Municipal Waterways Maintenance Plan



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USGS, AeroGRID, IGN, the GIS User Community, SanGIS, and the City of San Diego.

Facility Maintenance Plan

Facility Name:

1660 Hotel Circle North

IAMFLOC:

#OT03321



1660 Hotel Circle North (Drain ID: #OT03321)

Facility Maintenance Plan

Detail

Watershed Management Area (WMA)	San Diego River
Hydrologic Subarea	907.11
Drainage Name	Mission Valley South
Tributaries (listed from downstream to upstream)	No named tributaries
Location Within Watershed	Draining to San Diego River
Location	Nearest Intersection: Hotel Circle North and Fashion Valley Road
Adjacent Land Use	Commercial, Multi-Family Residential, Office, Parks, Transportation, Vacant
Coastal Zone	No
Structure Type	Outlet
Structure Detail	Headwall
Pipe Diameter and Material	54 inches reinforced concrete arch culvert
Pipe Length	152 feet
IAMFLOC	#OT03321
SAP ID	SS-013792 (2)
Equipment ID	80027000
GIS ID	DS024580
Other Identifiers	None
As-built Drawing Number	12997-1-D



Figure 1: July 2017, photo of 1660 Hotel Circle North



Figure 2: Vicinity Map of 1660 Hotel Circle North

1660 Hotel Circle North (Drain ID: #OT03321)

Facility Maintenance Plan

Facility Maintenance History

This section describes previous facility maintenance, regulatory approvals, and mitigation.

History of Maintenance	Prior to 2015: Unknown November 2016 and November 2017: Minor emergency maintenance conducted
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Past Regulatory Approvals

CEQA NOE: Emergency Project No. 475704

CDP N/A

SDP None

404 File No. SPL-2016-00121-MG (No Permit Required)

401 Concurrence in 2/2016 that no permit required; no file #

1602 Courtesy notification submitted 03/2016

Mitigation for Previous Impacts	No
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Hydrology and Hydraulics Summary

This section describes the current conditions in the facility, recommended maintenance, and the potential for erosion following maintenance.

Current Conditions Affecting Facility Capacity	Maintenance recently performed at this location, so outlet area was clear. Previously the area had 5 to 10 feet of sediment deposition and vegetation growth.
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Maintenance Recommendation	Recommend to keep the outlet clear as sediment and vegetation build up
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In-Stream Post-Maintenance Erosion Control Recommendation	Subject to further analysis to determine need and type
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1660 Hotel Circle North (Drain ID: #OT03321)

Facility Maintenance Plan

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses and notes to illustrate special habitat and wildlife.

Facility Vegetation	<ul style="list-style-type: none"> Natural flood channel
Adjacent Vegetation	<ul style="list-style-type: none"> Developed land Disturbed wetland Eucalyptus woodland Ornamental vegetation Riparian forest (southern willow forest)
Habitat and Wildlife	There is limited suitable habitat contained within the facility for wildlife. However, raptors could use the tall ornamental vegetation or riparian forest present adjacent to the facility for nesting/roosting. In addition, other sensitive bird species (e.g., least Bell's vireo) could occur in riparian forest (southern willow forest) habitat adjacent to the channel.
MHPA	The facility is not within or adjacent to the Multi-Habitat Planning Area (MHPA). The nearest MHPA boundary is located approximately 365 feet north of the structure.
Mitigation Within Facility	None

Water Quality Resource Summary

San Diego River Watershed Management Area; Hydrologic Subarea 907.11

Adopted TMDLs	Bacteria Project I
Highest Priority Water Quality Condition	Bacteria

N/A	
Beneficial Uses	
303(d) listed Impairments	No impairments recorded on the 303(d) List

San Diego River (First downstream water body)

Beneficial Uses	<ul style="list-style-type: none"> Agricultural Supply (AGR) Industrial Service Supply (IND) Contact Water Recreation (REC-1) Non-contact Water Recreation (REC-2) Preservation of Biological Habitats of Special Significance (BIOL) Warm Freshwater Habitat (WARM) Wildlife Habitat (WILD) Preservation of Rare and Endangered Species (RARE)
303(d) listed Impairments	Benthic Community Effects, Cadmium, Indicator Bacteria, Nitrogen, Oxygen, Dissolved, Phosphorus, Total Dissolved Solids, Toxicity

1660 Hotel Circle North (Drain ID: #OT03321)
Facility Maintenance Plan

Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources

Resource Identified in APE	None
Resource Identified Adjacent to APE	None
Resource Type	N/A

Historical Resources

Resource Identified in APE	Facility; 1969 structural facility
Potential Historical Resources	Yes
Constrain Identified	

1660 Hotel Circle North (Drain ID: #OT03321)
Facility Maintenance Plan

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-1a
EP-BIO-6	MM-BIO-2
Health and Safety/Hazards (HAZ)	MM-BIO-3
EP-HAZ-3	MM-BIO-4
Hydrology (HYD)	MM-BIO-5
EP-HYD-1	MM-BIO-6
Solid Waste (SW)	Historic, Archaeological, and Tribal Cultural Resources (HR and CR)
EP-SW-2	MM-HR-1
EP-SW-3	MM-HR-2
EP-SW-4	Noise (NOI)
EP-SW-5	MM-NOI-1
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

1660 Hotel Circle North (Drain ID: #OT03321)

Facility Maintenance Plan

Maintenance Methods

This section describes the specific activities, equipment, and methodology for maintenance of this facility including a general site plan (Map A). It is intended to be used as a guide for the maintenance crew.

Structure Name	1660 Hotel Circle North
Coastal Zone	No
MWMP Proposed Maintenance	Maintenance of structure per as-built dimensions and Hydrology and Hydraulics Recommendation
Hydrology and Hydraulics Recommendation	Recommend to keep the outlet clear as sediment and vegetation build up
Maintenance Activities	Vegetation grubbing, trimming, and removal Invasive plant species treatment and removal Sediment removal Concrete repair
Maintenance Method	Excavation; mechanized equipment inside and outside of facility Temporary access/loading Temporary staging Temporary diversions Hand removal of vegetation
Bank Repair	No
Concrete Repair	Yes; see Appendix A-4
Concrete/Gabion Structure Repair and Maintenance	No
Culvert Maintenance	Yes; see Appendix A-4
Post-Maintenance Erosion Control Recommendation	Subject to further analysis to determine need and type
Trash/Debris Fence Repair and Maintenance	No
Structure Type	Outlet
Existing Plans and/or As-Builts?	Yes; 12997-1-D
Structure Size	54 inches & Arch Culvert
Structure Detail	Headwall
Maintenance Area Substrate	Earthen
Authorized Facility Maintenance Area	Length: 46 feet Width: 16–23 feet
Maintenance Quantities	To be determined at time of maintenance
Access/Loading/Staging/Stockpiling Area(s)	Designated areas on Map A or within City ROW may be used for access, loading, staging, and/or stockpiling. The boundaries of these areas may also be modified as long as changes do not result in new significant environmental impacts.
Equipment	Bulldozer/track-steer, Baker tank, Gradall/excavator, dump truck, vactor
Schedule	Up to approximately 15–20 working days
Maintenance Crew	Approximately 8–10 people

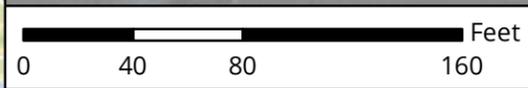
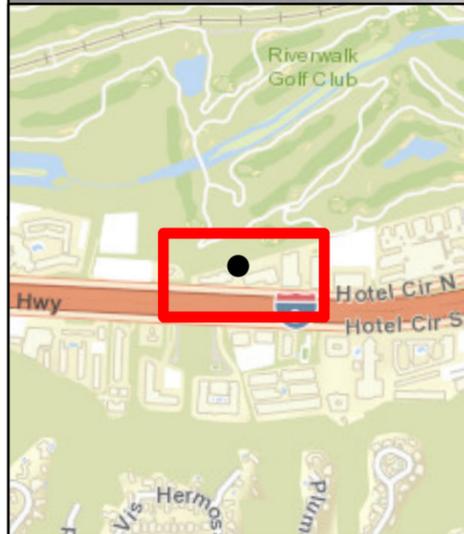
1660 Hotel Circle North (Drain ID: #OT03321)
Facility Maintenance Plan

Routine Maintenance Procedures	Conduct maintenance procedures as follows: 1. Bulldozer/track-steer enters or is lowered into facility at access/loading area 2. Bulldozer/track-steer push material to access/loading area 3. Gradall/excavator at access/loading area scoops material from facility and loads dump trucks 4. Dump trucks haul material to legal disposal site 5. Use Baker tank, as needed, for dewatering
Traffic Control	No
Additional Maintenance Information	
Pre-Maintenance Meeting	Prior to the start of any maintenance activity, a qualified specialist shall conduct the following on site: 1. Review sensitive biological/historical/water quality resources; if present flag/delineate 2. Conduct appropriate training 3. Review BMP installation 4. If needed, review pre- and during-maintenance pumping procedures 5. Conduct pre-maintenance site photo documentation
Biology	Suitable habitat for sensitive species ¹ : 1. Within maintenance area: Yes, limited suitable habitat present 2. Adjacent to maintenance area: Yes Activities to be conducted under authority of a qualified biologist: 1. Nesting bird surveys required within 72 hours of the start of vegetation clearing from February 1 through September 15
Flow Management	As needed: 1. Vactor or pump standing water from facility 2. Install temporary dry-weather flow-diversion berm(s) across facility (upstream and downstream of maintenance area) 3. Position vactor/pump to capture any incoming or contained flows 4. If pumping water through temporary hose(s) to location(s) downstream, allow for distributed discharge and infiltration
Downstream Sensitive Waters	Yes; implement BMPs per Water Pollution Control Plan
BMP Installation	See Water Pollution Control Plan
In-Stream Post-Maintenance Erosion Control Recommendation	Subject to further analysis to determine need and type

¹ Species covered under the Multiple Species Conservation Program, other special-status species, including raptors.

1660 Hotel Circle North (Drain ID: #OT03321)
Facility Maintenance Plan

Post-Maintenance Procedures	Conduct post-maintenance procedures as follows: <ol style="list-style-type: none">1. Demobilize equipment2. Restore temporary access/loading areas to pre-maintenance condition or as required by the WPCP for final stabilization3. Street Sweeper will sweep/clean debris from street/right-of-way/project area(s), as needed4. Remove temporary BMPs5. Update maintenance record6. Conduct post-maintenance site photo documentation
Other Notes	None



- Drain Structure
- Access/Loading/Staging/Stockpiling Area
- Maintenance Area



Notes:
 1. Concrete repair may occur within this facility area.
 2. Access/Loading/Staging/Stockpiling may also occur within City ROW.
 3. Access/Loading/Staging/Stockpiling may be modified during implementation.

November 2019

Map A: General Site Plan
Structure Name: 1660 Hotel Circle North
IAMFLOC: #OT03321
Facility Maintenance Plan
Municipal Waterways Maintenance Plan



Facility Maintenance Plan

Facility Name:

901 Hotel Circle South

IAMFLOC:

#HW02440



901 Hotel Circle South (Drain ID: #HW02440)

Facility Maintenance Plan

Detail

Watershed Management Area (WMA)	San Diego River
Hydrologic Subarea	907.11
Drainage Name	Mission Valley South
Tributaries (listed from downstream to upstream)	San Diego River Unnamed Tributary
Location Within Watershed	Draining to San Diego River
Location	Nearest Intersection: Hotel Circle S and Bachman Place
Adjacent Land Use	Commercial, Open Space, Single Family Residential, Transportation, Vacant
Coastal Zone	No
Structure Type	Inlet
Structure Detail	Culvert entrance, headwall, and debris fences
Pipe Diameter and Material	42 inches reinforced concrete pipe
Pipe Length	128 feet
IAMFLOC	#HW02440
SAP ID	SS-008101
Equipment ID	80032163
GIS ID	DS025050
Other Identifiers	98S 756 E. Court Way and Hawk Street (Frogs – Hotel Circle South)
As-built Drawing Number	16423-1-D



Figure 1: July 2017, photo of 901 Hotel Circle South



Figure 2: Vicinity Map of 901 Hotel Circle South

901 Hotel Circle South (Drain ID: #HW02440)

Facility Maintenance Plan



Figure 3: July 2017. Photo of 901 Hotel Circle South debris fence

Facility Maintenance History

This section describes previous facility maintenance, regulatory approvals, and mitigation.

History of Maintenance	Prior to 2015: Unknown
	2016: Emergency maintenance
	June and November 2017: Minor maintenance conducted

Past Regulatory Approvals

CEQA	None
CDP	N/A
SDP	None
404	None
401	None
1602	None

Mitigation for Previous Impacts	No
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901 Hotel Circle South (Drain ID: #HW02440)

Facility Maintenance Plan

Hydrology and Hydraulics Summary

This section describes the current conditions in the facility, recommended maintenance, and the potential for erosion following maintenance.

Current Conditions Affecting Facility Capacity	The inlet is a headwall structure with sediment and debris deposition near the headwall and behind the debris fences. The concrete channel behind the debris fence is missing large section of concrete/gunite from the channel bottom. The downstream debris fence has a gap at the bottom and looks to be in need of repairs.
Maintenance Recommendation	Recommended to remove sediment and debris from the structure as well as repair the missing concrete/gunite and the debris fence
In-Stream Post-Maintenance Erosion Control Recommendation	No

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses and notes to illustrate special habitat and wildlife.

Facility Vegetation	<ul style="list-style-type: none">• Developed concrete-lined channel
Adjacent Vegetation	<ul style="list-style-type: none">• Chaparral• Coastal sage scrub• Developed land• Disturbed land• Eucalyptus woodland• Natural flood channel• Ornamental vegetation
Habitat and Wildlife	There is limited suitable habitat contained within the facility for wildlife. However, raptors could use the eucalyptus woodland present adjacent to the facility for nesting/roosting. In addition, other sensitive bird species (e.g., coastal California gnatcatcher) could occur in coastal sage scrub habitat adjacent to the structure.
MHPA	The facility is partially within the Multi-Habitat Planning Area (MHPA) which extends south of the structure.
Mitigation Within Facility	None

901 Hotel Circle South (Drain ID: #HW02440)

Facility Maintenance Plan

Water Quality Resource Summary

San Diego River Watershed Management Area; Hydrologic Subarea 907.11

Adopted TMDLs Bacteria Project I

Highest Priority Water Quality Condition Bacteria

San Diego River Unnamed Tributary

Beneficial Uses

- Agricultural Supply (AGR)
- Industrial Service Supply (IND)
- Contact Water Recreation (REC-1)
- Non-contact Water Recreation (REC-2)
- Warm Freshwater Habitat (WARM)
- Wildlife Habitat (WILD)
- Preservation of Rare and Endangered Species (RARE)

303(d) listed Impairments No impairments recorded on the 303(d) List

San Diego River (First downstream water body)

Beneficial Uses

- Agricultural Supply (AGR)
- Industrial Service Supply (IND)
- Contact Water Recreation (REC-1)
- Non-contact Water Recreation (REC-2)
- Preservation of Biological Habitats of Special Significance (BIOL)
- Warm Freshwater Habitat (WARM)
- Wildlife Habitat (WILD)
- Preservation of Rare and Endangered Species (RARE)

303(d) listed Impairments Benthic Community Effects, Cadmium, Indicator Bacteria, Nitrogen, Oxygen, Dissolved, Phosphorus, Total Dissolved Solids, Toxicity

901 Hotel Circle South (Drain ID: #HW02440)
Facility Maintenance Plan

Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources

Resource Identified in APE	None
Resource Identified Adjacent to APE	P-37-011055
Resource Type	Prehistoric hearth and artifact scatter

Historical Resources

Resource Identified in APE	None
Potential Historical Resources	None
Constrain Identified	

901 Hotel Circle South (Drain ID: #HW02440)
Facility Maintenance Plan

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-1a
EP-BIO-6	MM-BIO-2
Health and Safety/Hazards (HAZ)	MM-BIO-3
EP-HAZ-3	MM-BIO-4
Land Use (LU)	MM-BIO-6
EP-LU-1	MM-BIO-7
Solid Waste (SW)	Noise (NOI)
EP-SW-2	MM-NOI-1
EP-SW-3	
EP-SW-4	
EP-SW-5	
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

901 Hotel Circle South (Drain ID: #HW02440)

Facility Maintenance Plan

Maintenance Methods

This section describes the specific activities, equipment, and methodology for maintenance of this facility including a general site plan (Map A). It is intended to be used as a guide for the maintenance crew.

Structure Name	901 Hotel Circle South
Coastal Zone	No
MWMP Proposed Maintenance	Maintenance of structure per as-built dimensions and Hydrology and Hydraulics Recommendation
Hydrology and Hydraulics Recommendation	Recommended to remove sediment and debris from the structure as well as repair the missing concrete/gunite and the debris fence
Maintenance Activities	Vegetation grubbing, trimming, and removal Invasive plant species treatment and removal Sediment removal Concrete repair Structure/Trash fence repair
Maintenance Method	Excavation; mechanized equipment in and outside of facility Temporary access/loading Temporary staging Temporary diversions Hand removal of vegetation
Bank Repair	No
Concrete Repair	Yes; see Appendix A-4
Concrete/Gabion Structure Repair and Maintenance	No
Culvert Maintenance	No
Post-Maintenance Erosion Control Recommendation	No
Trash/Debris Fence Repair and Maintenance	Yes; see Appendix A-4
Structure Type	Inlet
Existing Plans and/or As-Builts?	Yes; 16423-1-D
Structure Size	42 inches
Structure Detail	Culvert entrance, headwall, and debris fences
Maintenance Area Substrate	Concrete
Authorized Facility Maintenance Area	Length: 149 feet Width: 16–36 feet
Maintenance Quantities	To be determined at time of maintenance
Access/Loading/Staging/Stockpiling Area(s)	Designated areas on Map A or within City ROW may be used for access, loading, staging, and/or stockpiling. The boundaries of these areas may also be modified as long as changes do not result in new significant environmental impacts.
Equipment	Gradall/excavator, dump truck, vactor
Schedule	Up to approximately 1 working day

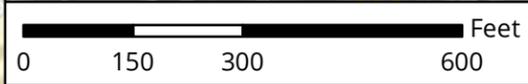
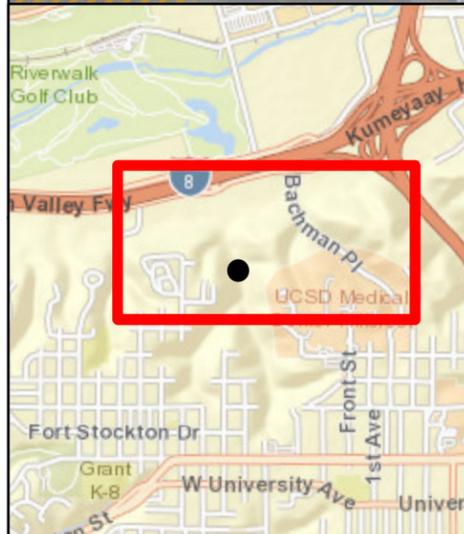
901 Hotel Circle South (Drain ID: #HW02440)
Facility Maintenance Plan

Maintenance Crew	Approximately 6–10 people
Routine Maintenance Procedures	Conduct maintenance procedures as follows: 1. Gradall/excavator is stationed above the channel bank in access/loading area 2. Gradall/excavator scoops material from facility and loads dump trucks 3. Dump trucks haul material to legal disposal site
Traffic Control	No
Additional Maintenance Information	
Pre-Maintenance Meeting	Prior to the start of any maintenance activity, a qualified specialist shall conduct the following on site: 1. Review sensitive biological/historical/water quality resources; if present flag/delineate 2. Conduct appropriate training 3. Review BMP installation 4. If needed, review pre- and during-maintenance pumping procedures 5. Conduct pre-maintenance site photo documentation
Biology	Suitable habitat for sensitive species ¹ : 1. Within maintenance area: Yes, limited suitable habitat present 2. Adjacent to maintenance area: Yes Activities to be conducted under authority of a qualified biologist: 1. Nesting bird surveys required within 72 hours of the start of vegetation clearing from February 1 through September 15
Flow Management	As needed: 1. Vactor or pump standing water from facility 2. Install temporary dry-weather flow-diversion berm(s) across facility (upstream and downstream of maintenance area) 3. Position vactor/pump to capture any incoming or contained flows 4. If pumping water through temporary hose(s) to location(s) downstream, allow for distributed discharge and infiltration
Downstream Sensitive Waters	Yes; implement BMPs per Water Pollution Control Plan
BMP Installation	See Water Pollution Control Plan
In-Stream Post-Maintenance Erosion Control Recommendation	No

¹ Species covered under the Multiple Species Conservation Program, other special-status species, including raptors.

901 Hotel Circle South (Drain ID: #HW02440)
Facility Maintenance Plan

Post-Maintenance Procedures	Conduct post-maintenance procedures as follows: <ol style="list-style-type: none">1. Demobilize equipment2. Restore temporary access/loading areas to pre-maintenance condition or as required by the WPCP for final stabilization3. Street Sweeper will sweep/clean debris from street/right-of-way/project area(s), as needed4. Remove temporary BMPs5. Update maintenance record6. Conduct post-maintenance site photo documentation
Other Notes	None



- Drain Structure
- ▨ Multi-Habitat Planning Area
- Access/Loading/Staging /Stockpiling Area
- Maintenance Area

Notes:

1. Concrete repair may occur within this facility area.
2. Access/Loading/Staging/Stockpiling may also occur within City ROW.
3. Access/Loading/Staging/Stockpiling may be modified during implementation



November 2019

Map A: General Site Plan
Structure Name: 901 Hotel Circle South
IAMFLOC: #HW02440
Facility Maintenance Plan
Municipal Waterways Maintenance Plan



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USGS, AeroGRID, IGN, the GIS User Community, SanGIS, and the City of San Diego.

Facility Maintenance Plan

Facility Name:

2087 Hotel Circle South

IAMFLOC:

#HW02437



2087 Hotel Circle South (Drain ID: #HW02437)

Facility Maintenance Plan

Detail

Watershed Management Area (WMA)	San Diego River
Hydrologic Subarea	907.11
Drainage Name	Mission Valley South
Tributaries (listed from downstream to upstream)	San Diego River unnamed tributary
Location Within Watershed	Draining to upper reach of San Diego River unnamed tributary
Location	Nearest Intersection: Hotel Circle South and I-8 on ramp
Adjacent Land Use	Commercial, Open Space, Single Family Residential, Transportation, Vacant
Coastal Zone	No
Structure Type	Inlet
Structure Detail	Culvert entrance
Pipe Diameter and Material	30 inches reinforced concrete pipe
Pipe Length	162 feet
IAMFLOC	#HW02437
SAP ID	SS-013389
Equipment ID	80032160
GIS ID	DS024954
Other Identifiers	1,690 feet from Fort Stockton on Allen Road (Extended Stay - 2087 Hotel Circle South)
As-built Drawing Number	20299-2-D



Figure 1: July 2017, photo of 2087 Hotel Circle South

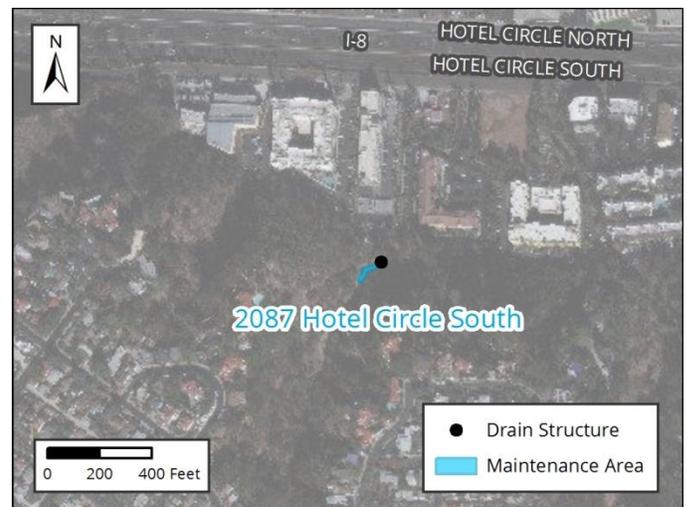


Figure 2: Vicinity Map of 2087 Hotel Circle South

2087 Hotel Circle South (Drain ID: #HW02437)

Facility Maintenance Plan



Figure 3: July 2017. Photo of 2087 Hotel Circle South debris fence

Facility Maintenance History

This section describes previous facility maintenance, regulatory approvals, and mitigation.

History of Maintenance

Prior to 2011: Unknown
March 2016: Emergency maintenance conducted
January 2017: Minor maintenance conducted

Past Regulatory Approvals

CEQA	NOE: Emergency Project No. 481884
CDP	N/A
SDP	Emergency Project No. 1688294
404	RGP 63 USACE File #SPL-2016-00212-WSZ
401	Emergency notification 03/2016 (no file number assigned)
1602	Emergency notification 03/2016 (no file number assigned)

Mitigation for Previous Impacts No

2087 Hotel Circle South (Drain ID: #HW02437)

Facility Maintenance Plan

Hydrology and Hydraulics Summary

This section describes the current conditions in the facility, recommended maintenance, and the potential for erosion following maintenance.

Current Conditions Affecting Facility Capacity	The inlet is a headwall structure with the upstream conveyance broken into three sections by debris fences. The section immediately upstream of the inlet is clean with very little debris. The second section has about 2 feet of sediment and debris built up behind the debris fence. The third section has approximately 1 foot of sediment and debris built up behind the debris fence.
Maintenance Recommendation	Recommend to remove sediment and debris built up upstream of the debris fences
In-Stream Post-Maintenance Erosion Control Recommendation	No

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses and notes to illustrate special habitat and wildlife.

Facility Vegetation	<ul style="list-style-type: none">• Developed concrete-lined channel• Natural flood channel
Adjacent Vegetation	<ul style="list-style-type: none">• Chaparral• Coastal sage scrub• Developed concrete-lined channel• Developed land• Disturbed land• Eucalyptus woodland• Natural flood channel• Ornamental vegetation• Riparian forest (coast live oak)• Riparian forest (southern riparian forest)
Habitat and Wildlife	There is limited suitable habitat contained within the facility for wildlife. However, raptors could use the eucalyptus woodland present adjacent to the facility for nesting/roosting. In addition, other sensitive bird species (e.g., coastal California gnatcatcher) could occur in coastal sage scrub habitat adjacent to the structure.
MHPA Mitigation Within Facility	The structure is located entirely within the Multi-Habitat Planning Area (MHPA) None

2087 Hotel Circle South (Drain ID: #HW02437)
Facility Maintenance Plan

Water Quality Resource Summary

San Diego River Watershed Management Area; Hydrologic Subarea 907.11

Adopted TMDLs Bacteria Project I

Highest Priority Water Quality Condition Bacteria

San Diego River Unnamed Tributary

Beneficial Uses

- Agricultural Supply (AGR)
- Industrial Service Supply (IND)
- Contact Water Recreation (REC-1)
- Non-contact Water Recreation (REC-2)
- Warm Freshwater Habitat (WARM)
- Wildlife Habitat (WILD)
- Preservation of Rare and Endangered Species (RARE)

303(d) listed Impairments No impairments recorded on the 303(d) List

San Diego River (First downstream water body)

Beneficial Uses

- Agricultural Supply (AGR)
- Industrial Service Supply (IND)
- Contact Water Recreation (REC-1)
- Non-contact Water Recreation (REC-2)
- Preservation of Biological Habitats of Special Significance (BIOL)
- Warm Freshwater Habitat (WARM)
- Wildlife Habitat (WILD)
- Preservation of Rare and Endangered Species (RARE)

303(d) listed Impairments Benthic Community Effects, Cadmium, Indicator Bacteria, Nitrogen, Oxygen, Dissolved, Phosphorus, Total Dissolved Solids, Toxicity

2087 Hotel Circle South (Drain ID: #HW02437)
Facility Maintenance Plan

Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources

Resource Identified in APE	None
Resource Identified Adjacent to APE	None
Resource Type	N/A

Historical Resources

Resource Identified in APE	None
Potential Historical Resources	None
Constrain Identified	

2087 Hotel Circle South (Drain ID: #HW02437)
Facility Maintenance Plan

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-2
EP-BIO-6	MM-BIO-3
Health and Safety/Hazards (HAZ)	MM-BIO-4
EP-HAZ-3	MM-BIO-6
Land Use (LU)	MM-BIO-7
EP-LU-1	Noise (NOI)
Solid Waste (SW)	MM-NOI-1
EP-SW-2	
EP-SW-3	
EP-SW-4	
EP-SW-5	
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

2087 Hotel Circle South (Drain ID: #HW02437)

Facility Maintenance Plan

Maintenance Methods

This section describes the specific activities, equipment, and methodology for maintenance of this facility including a general site plan (Map A). It is intended to be used as a guide for the maintenance crew.

Structure Name	2087 Hotel Circle South
Coastal Zone	No
MWMP Proposed Maintenance	Maintenance of structure per as-built dimensions and Hydrology and Hydraulics Recommendation
Hydrology and Hydraulics Recommendation	Recommend to remove sediment and debris built up upstream of the debris fences
Maintenance Activities	Vegetation grubbing, trimming, and removal Invasive plant species treatment and removal Sediment removal Concrete repair
Maintenance Method	Excavation; mechanized equipment in facility Temporary access/loading Temporary staging Temporary diversions Hand removal of vegetation
Bank Repair	No
Concrete Repair	Yes; see Appendix A-4
Concrete/Gabion Structure Repair and Maintenance	No
Culvert Maintenance	Yes; see Appendix A-4
Post-Maintenance Erosion Control Recommendation	No
Trash/Debris Fence Repair and Maintenance	Yes; see Appendix A-4
Structure Type	Inlet
Existing Plans and/or As-Builts?	Yes; 20299-2-D
Structure Size	30 inches
Structure Detail	Culvert entrance
Maintenance Area Substrate	Earthen and concrete
Authorized Facility Maintenance Area	Length: 120 feet Width: 9–13 feet
Maintenance Quantities	To be determined at time of maintenance
Access/Loading/Staging/Stockpiling Area(s)	Designated areas on Map A or within City ROW may be used for access, loading, staging, and/or stockpiling. The boundaries of these areas may also be modified as long as changes do not result in new significant environmental impacts.
Equipment	Bulldozer/track-steer, loader, mini-excavator, dump truck, vactor
Schedule	Up to approximately 20 working days
Maintenance Crew	Approximately 10–15 people

2087 Hotel Circle South (Drain ID: #HW02437)

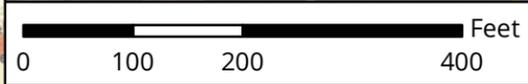
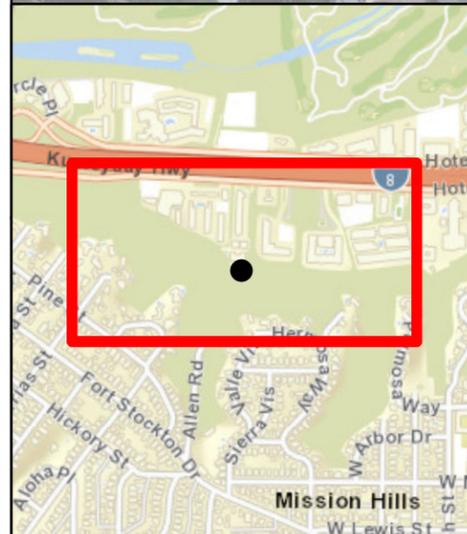
Facility Maintenance Plan

Routine Maintenance Procedures	<p>Conduct maintenance procedures as follows:</p> <ol style="list-style-type: none"> 1. Bullozer/track-steer and mini-excavator enter facility at access/loading area 2. Bulldozer/track-steer, and mini-excavator push/transport material to to access/loading area 3. Loader at access/loading area scoops material and loads dump trucks 4. Dump trucks haul material to legal disposal site
Traffic Control	No
Additional Maintenance Information	
Pre-Maintenance Meeting	<p>Prior to the start of any maintenance activity, a qualified specialist shall conduct the following on site:</p> <ol style="list-style-type: none"> 1. Review sensitive biological/historical/water quality resources; if present flag/delineate 2. Conduct appropriate training 3. Review BMP installation 4. If needed, review pre- and during-maintenance pumping procedures 5. Conduct pre-maintenance site photo documentation
Biology	<p>Suitable habitat for sensitive species¹:</p> <ol style="list-style-type: none"> 1. Within maintenance area: Yes, limited suitable habitat present 2. Adjacent to maintenance area: Yes <p>Activities to be conducted under authority of a qualified biologist:</p> <ol style="list-style-type: none"> 1. Nesting bird surveys required within 72 hours of the start of vegetation clearing from February 1 through September 15
Flow Management	<p>As needed:</p> <ol style="list-style-type: none"> 1. Vactor or pump standing water from facility 2. Install temporary dry-weather flow-diversion berm(s) across facility (upstream and downstream of maintenance area) 3. Position vactor/pump to capture any incoming or contained flows 4. If pumping water through temporary hose(s) to location(s) downstream, allow for distributed discharge and infiltration
Downstream Sensitive Waters	Yes; implement BMPs per Water Pollution Control Plan
BMP Installation	See Water Pollution Control Plan
In-Stream Post-Maintenance Erosion Control Recommendation	No

¹ Species covered under the Multiple Species Conservation Program, other special-status species, including raptors.

2087 Hotel Circle South (Drain ID: #HW02437)
Facility Maintenance Plan

Post-Maintenance Procedures	Conduct post-maintenance procedures as follows: <ol style="list-style-type: none">1. Demobilize equipment2. Restore temporary access/loading areas to pre-maintenance condition or as required by the WPCP for final stabilization3. Street Sweeper will sweep/clean debris from street/right-of-way/project area(s), as needed4. Remove temporary BMPs5. Update maintenance record6. Conduct post-maintenance site photo documentation
Other Notes	None



- Drain Structure
- ▨ Multi-Habitat Planning Area
- Access/Loading/Staging/Stockpiling Area
- Maintenance Area



The City of
SAN DIEGO

Notes:
 1. Concrete repair may occur within this facility area.
 2. Access/Loading/Staging/Stockpiling may also occur within City ROW.
 3. Access/Loading/Staging/Stockpiling may be modified during implementation.

November 2019

Map A: General Site Plan
Structure Name: 2087 Hotel Circle South
IAMFLOC: #HW02437
Facility Maintenance Plan
Municipal Waterways Maintenance Plan



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USGS, AeroGRID, IGN, the GIS User Community, SanGIS, and the City of San Diego.

Facility Maintenance Plan

Facility Name:

3644 Roselawn

IAMFLOC:

#OT03694



3644 Roselawn (Drain ID: #OT03694)

Facility Maintenance Plan

Detail

Watershed Management Area (WMA)	San Diego Bay
Hydrologic Subarea	908.22
Drainage Name	Chollas
Tributaries (listed from downstream to upstream)	Auburn Creek
Location Within Watershed	Draining to Auburn Creek
Location	Nearest Intersection: Roselawn Avenue and Euclid Avenue; access through 3634 Roselawn Avenue
Adjacent Land Use	Commercial, Industrial, Single Family Residential, Transportation, Vacant
Coastal Zone	No
Structure Type	Outlet
Structure Detail	Pipe and headwall
Pipe Diameter and Material	18 inches reinforced concrete pipe
Pipe Length	80 feet
IAMFLOC	#OT03694
SAP ID	SS-023610
Equipment ID	80027375
GIS ID	DS027991
Other Identifiers	None
As-built Drawing Number	17423-D

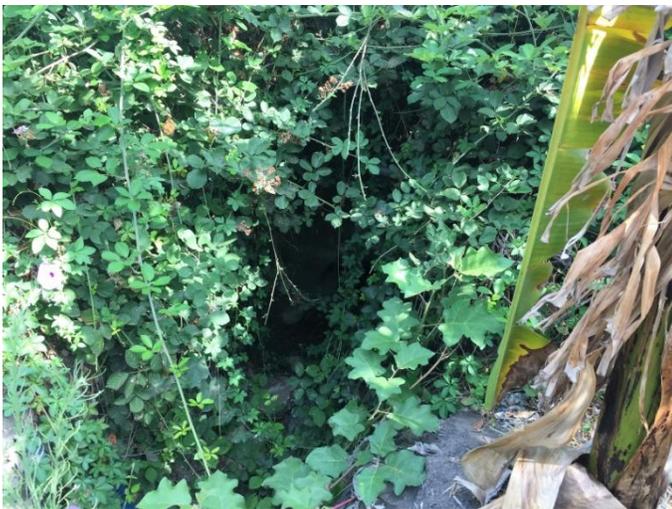


Figure 1: July 2017, photo of 3644 Roselawn



Figure 2: Vicinity Map of 3644 Roselawn

3644 Roselawn (Drain ID: #OT03694)

Facility Maintenance Plan

Facility Maintenance History

This section describes previous facility maintenance, regulatory approvals, and mitigation.

History of Maintenance	Prior to 2011: Unknown September 2016: Minor maintenance conducted
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Past Regulatory Approvals

CEQA None

CDP N/A

SDP None

404 None

401 None

1602 None

Mitigation for Previous Impacts	No
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Hydrology and Hydraulics Summary

This section describes the current conditions in the facility, recommended maintenance, and the potential for erosion following maintenance.

Current Conditions Affecting Facility Capacity	Maintenance recently performed at this location so outfall area was clear. Minor sediment build up was noted near the outlet.
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Maintenance Recommendation	Recommend vegetation trimming and sediment removal to continue to allow outlet to drain
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In-Stream Post-Maintenance Erosion Control Recommendation	As-built includes a riprap energy dissipator at the outlet. Additional analysis is needed to determine if the as-built condition reduces velocities below permissible levels.
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Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses and notes to illustrate special habitat and wildlife.

Facility Vegetation	<ul style="list-style-type: none">Ornamental vegetation
----------------------------	---

Adjacent Vegetation	<ul style="list-style-type: none">Developed landOrnamental vegetation
----------------------------	--

Habitat and Wildlife	There are no significant biological resources suitable for sensitive species use within or adjacent to the facility
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MHPA	The facility is not within or adjacent to the Multi-Habitat Planning Area (MHPA). The structure is surrounded by residential development.
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Mitigation Within Facility	None
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3644 Roselawn (Drain ID: #OT03694) Facility Maintenance Plan

Water Quality Resource Summary

San Diego Bay Watershed Management Area; Hydrologic Subarea 908.22

Adopted TMDLs	Bacteria Project I; Chollas Creek dissolved copper, lead, and zinc; Chollas Creek diazinon
Highest Priority Water Quality Condition	Bacteria; dissolved copper, lead, and zinc

N/A

Beneficial Uses

303(d) listed Impairments	No impairments recorded on the 303(d) List
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Chollas Creek (First downstream water body)

Beneficial Uses	<ul style="list-style-type: none"> • Non-contact Water Recreation (REC-2) • Warm Freshwater Habitat (WARM) • Wildlife Habitat (WILD)
303(d) listed Impairments	Copper, Indicator Bacteria, Lead, Nitrogen, Pesticides, Phosphorus, Trash, Zinc

Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources

Resource Identified in APE	None
Resource Identified Adjacent to APE	None
Resource Type	N/A

Historical Resources

Resource Identified in APE	Facility; 1951 structural facility
Potential Historical Resources	Yes
Constrain Identified	

3644 Roselawn (Drain ID: #OT03694)
Facility Maintenance Plan

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-2
EP-BIO-6	MM-BIO-4
Health and Safety/Hazards (HAZ)	Historic, Archaeological, and Tribal Cultural Resources (HR and CR)
EP-HAZ-3	MM-HR-1
Hydrology (HYD)	MM-HR-2
EP-HYD-1	Noise (NOI)
Solid Waste (SW)	MM-NOI-1
EP-SW-2	
EP-SW-3	
EP-SW-4	
EP-SW-5	
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

3644 Roselawn (Drain ID: #OT03694)

Facility Maintenance Plan

Maintenance Methods

This section describes the specific activities, equipment, and methodology for maintenance of this facility including a general site plan (Map A). It is intended to be used as a guide for the maintenance crew.

Structure Name	3644 Roselawn
Coastal Zone	No
MWMP Proposed Maintenance	Maintenance of structure per as-built dimensions and Hydrology and Hydraulics Recommendation
Hydrology and Hydraulics Recommendation	Recommend vegetation trimming and sediment removal to continue to allow outlet to drain
Maintenance Activities	Vegetation grubbing, trimming, and removal Invasive plant species treatment and removal Sediment removal Concrete repair
Maintenance Method	Excavation; mechanized equipment in facility Temporary access/loading Temporary staging Temporary diversions Hand removal of vegetation
Bank Repair	No
Concrete Repair	Yes; see Appendix A-4
Concrete/Gabion Structure Repair and Maintenance	No
Culvert Maintenance	Yes; see Appendix A-4
Post-Maintenance Erosion Control Recommendation	Subject to further analysis to determine need and type
Trash/Debris Fence Repair and Maintenance	No
Structure Type	Outlet
Existing Plans and/or As-Builts?	Yes; 17423-D
Structure Size	18 inches
Structure Detail	Pipe and headwall
Maintenance Area Substrate	Earthen
Authorized Facility Maintenance Area	Length: 52 feet Width: 6–8 feet
Maintenance Quantities	To be determined at time of maintenance
Access/Loading/Staging/Stockpiling Area(s)	Designated areas on Map A or within City ROW may be used for access, loading, staging, and/or stockpiling. The boundaries of these areas may also be modified as long as changes do not result in new significant environmental impacts.
Equipment	Bulldozer/track-steer, mini-excavator, dump truck, vactor, fuel-powered hand tools
Schedule	Up to approximately 3–5 working days

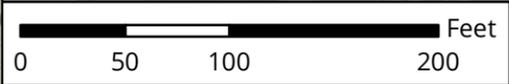
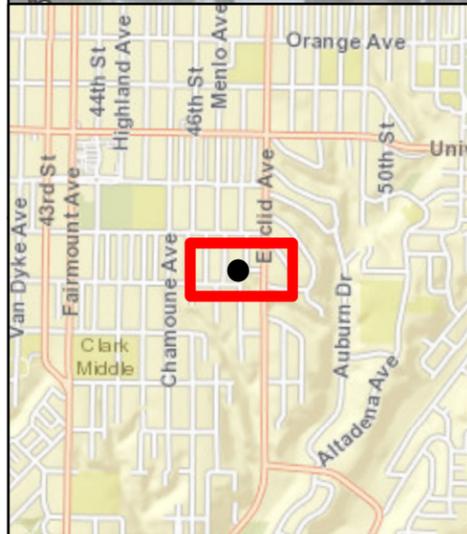
3644 Roselawn (Drain ID: #OT03694)
Facility Maintenance Plan

Maintenance Crew	Approximately 9–12 people
Routine Maintenance Procedures	Conduct maintenance procedures as follows: 1. Bulldozer/track-steer and mini-excavator enter facility at access/loading area 2. Mini-excavator scoops material and loads bulldozer/track-steer 3. Bulldozer/track-steer transports material and loads dump truck at access/loading area 4. Dump trucks haul material to legal disposal site
Traffic Control	No
Additional Maintenance Information	
Pre-Maintenance Meeting	Prior to the start of any maintenance activity, a qualified specialist shall conduct the following on site: 1. Review sensitive biological/historical/water quality resources; if present flag/delineate 2. Conduct appropriate training 3. Review BMP installation 4. If needed, review pre- and during-maintenance pumping procedures 5. Conduct pre-maintenance site photo documentation
Biology	Suitable habitat for sensitive species ¹ : 1. Within maintenance area: No 2. Adjacent to maintenance area: No Activities to be conducted under authority of a qualified biologist: 1. Nesting bird surveys required within 72 hours of the start of vegetation clearing from February 1 through September 15
Flow Management	As needed: 1. Vactor or pump standing water from facility 2. Install temporary dry-weather flow-diversion berm(s) across facility (upstream and downstream of maintenance area) 3. Position vactor/pump to capture any incoming or contained flows 4. If pumping water through temporary hose(s) to location(s) downstream, allow for distributed discharge and infiltration
Downstream Sensitive Waters	Yes; implement BMPs per Water Pollution Control Plan
BMP Installation	See Water Pollution Control Plan
In-Stream Post-Maintenance Erosion Control Recommendation	As-built includes a riprap energy dissipator at the outlet. Additional analysis is needed to determine if the as-built condition reduces velocities below permissible levels.

¹ Species covered under the Multiple Species Conservation Program, other special-status species, including raptors.

3644 Roselawn (Drain ID: #OT03694)
Facility Maintenance Plan

Post-Maintenance Procedures	Conduct post-maintenance procedures as follows: <ol style="list-style-type: none">1. Demobilize equipment2. Restore temporary access/loading areas to pre-maintenance condition or as required by the WPCP for final stabilization3. Street Sweeper will sweep/clean debris from street/right-of-way/project area(s), as needed4. Remove temporary BMPs5. Update maintenance record6. Conduct post-maintenance site photo documentation
Other Notes	None



● Drain Structure	■ Access/Loading/Staging /Stockpiling Area
	■ Maintenance Area



Notes:
 1. Concrete repair may occur within this facility area.
 2. Access/Loading/Staging/Stockpiling may also occur within City ROW.
 3. Access/Loading/Staging/Stockpiling may be modified during implementation.

November 2019

Map A: General Site Plan
Structure Name: 3644 Roselawn
IAMFLOC: #OT03694
Facility Maintenance Plan
Municipal Waterways Maintenance Plan



Facility Maintenance Plan

Facility Name:

4202 J Street

IAMFLOC:

#HW04013



4202 J Street (Drain ID: #HW04013)

Facility Maintenance Plan

Detail

Watershed Management Area (WMA)	San Diego Bay
Hydrologic Subarea	908.22
Drainage Name	Chollas
Tributaries (listed from downstream to upstream)	Chollas Creek unnamed tributary
Location Within Watershed	Draining to upper reach of Chollas Creek unnamed tributary, upstream of Chollas Creek (Ocean View)
Location	Nearest Intersection: J Street and 42nd Street; guardrail on corner is removed for equipment access
Adjacent Land Use	Parks, Single Family Residential, Transportation, Vacant
Coastal Zone	No
Structure Type	Outlet
Structure Detail	Pipe and headwall
Pipe Diameter and Material	30 inches reinforced concrete pipe
Pipe Length	37 feet
IAMFLOC	#HW04013
SAP ID	Sx-014413
Equipment ID	80046823
GIS ID	DS047703
Other Identifiers	None
As-built Drawing Number	28415-9-D



Figure 1: July 2017, photo of 4202 J Street



Figure 2: Vicinity Map of 4202 J Street

4202 J Street (Drain ID: #HW04013)

Facility Maintenance Plan

Facility Maintenance History

This section describes previous facility maintenance, regulatory approvals, and mitigation.

History of Maintenance	Prior to 2011: Unknown January 2011 – March 2017: No maintenance conducted
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Past Regulatory Approvals

CEQA None

CDP N/A

SDP None

404 None

401 None

1602 None

Mitigation for Previous Impacts	No
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Hydrology and Hydraulics Summary

This section describes the current conditions in the facility, recommended maintenance, and the potential for erosion following maintenance.

Current Conditions Affecting Facility Capacity	The outlet is a headwall with approximately 0.5 feet of sediment and debris deposition. Additional sediment deposition (approximately 1–2 feet) and vegetation growth immediately downstream of the outlet creates a blockage for lower flows.
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Maintenance Recommendation	Recommend removal of sediment and vegetation at the outlet headwall to allow outlet to drain
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In-Stream Post-Maintenance Erosion Control Recommendation	As-built includes a riprap energy dissipator at the outlet. Additional analysis is needed to determine if the as-built condition reduces velocities below permissible levels.
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4202 J Street (Drain ID: #HW04013)

Facility Maintenance Plan

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses and notes to illustrate special habitat and wildlife.

Facility Vegetation	<ul style="list-style-type: none">• Disturbed wetland (Arundo dominated)• Riparian scrub (southern willow scrub)
Adjacent Vegetation	<ul style="list-style-type: none">• Developed land• Disturbed land• Disturbed wetland (Arundo-dominated)• Eucalyptus woodland• Ornamental vegetation• Riparian scrub (southern willow scrub)
Habitat and Wildlife	There is suitable habitat contained within and adjacent to the facility for sensitive species (e.g., least Bell's vireo). Raptors could also use the eucalyptus woodland present adjacent to the facility for nesting/roosting.
MHPA	The facility is not within or adjacent to the Multi-Habitat Planning Area (MHPA). The structure is surrounded by residential development.
Mitigation Within Facility	None

Water Quality Resource Summary

San Diego Bay Watershed Management Area; Hydrologic Subarea 908.22

Adopted TMDLs	Bacteria Project I; Chollas Creek dissolved copper, lead, and zinc; Chollas Creek diazinon
Highest Priority Water Quality Condition	Bacteria; dissolved copper, lead, and zinc

Chollas Creek Unnamed Tributary

Beneficial Uses	<ul style="list-style-type: none">• Non-contact Water Recreation (REC-2)• Warm Freshwater Habitat (WARM)• Wildlife Habitat (WILD)
303(d) listed Impairments	No impairments recorded on the 303(d) List

Chollas Creek (First downstream water body)

Beneficial Uses	<ul style="list-style-type: none">• Non-contact Water Recreation (REC-2)• Warm Freshwater Habitat (WARM)• Wildlife Habitat (WILD)
303(d) listed Impairments	Copper, Indicator Bacteria, Lead, Nitrogen, Pesticides, Phosphorus, Trash, Zinc

4202 J Street (Drain ID: #HW04013)
Facility Maintenance Plan

Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources

Resource Identified in APE	None
Resource Identified Adjacent to APE	P-37-035162
Resource Type	Memorial park

Historical Resources

Resource Identified in APE	None
Potential Historical Resources	None
Constrain Identified	

4202 J Street (Drain ID: #HW04013)
Facility Maintenance Plan

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-1a
EP-BIO-6	MM-BIO-2
Health and Safety/Hazards (HAZ)	MM-BIO-3
EP-HAZ-3	MM-BIO-4
Hydrology (HYD)	MM-BIO-6
EP-HYD-1	Noise (NOI)
Solid Waste (SW)	MM-NOI-1
EP-SW-2	
EP-SW-3	
EP-SW-4	
EP-SW-5	
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

4202 J Street (Drain ID: #HW04013)

Facility Maintenance Plan

Maintenance Methods

This section describes the specific activities, equipment, and methodology for maintenance of this facility including a general site plan (Map A). It is intended to be used as a guide for the maintenance crew.

Structure Name	4202 J Street
Coastal Zone	No
MWMP Proposed Maintenance	Maintenance of structure per as-built dimensions and Hydrology and Hydraulics Recommendation
Hydrology and Hydraulics Recommendation	Recommend removal of sediment and vegetation at the outlet headwall to allow outlet to drain
Maintenance Activities	Vegetation grubbing, trimming, and removal Invasive plant species treatment and removal Sediment removal Concrete repair
Maintenance Method	Excavation; mechanized equipment outside of facility Temporary access/loading Temporary staging Temporary diversions Hand removal of vegetation
Bank Repair	No
Concrete Repair	Yes; see Appendix A-4
Concrete/Gabion Structure Repair and Maintenance	No
Culvert Maintenance	Yes; see Appendix A-4
Post-Maintenance Erosion Control Recommendation	Subject to further analysis to determine need and type
Trash/Debris Fence Repair and Maintenance	No
Structure Type	Outlet
Existing Plans and/or As-Builts?	Yes; 28415-9-D
Structure Size	30 inches
Structure Detail	Pipe and headwall
Maintenance Area Substrate	Earthen
Authorized Facility Maintenance Area	Length: 96 feet Width: 11 feet
Maintenance Quantities	To be determined at time of maintenance
Access/Loading/Staging/Stockpiling Area(s)	Designated areas on Map A or within City ROW may be used for access, loading, staging, and/or stockpiling. The boundaries of these areas may also be modified as long as changes do not result in new significant environmental impacts.
Equipment	Bulldozer/track-steer, Gradall/excavator, backhoe, dump truck, vactor, fuel-powered hand tools
Schedule	Up to approximately 14 working days

4202 J Street (Drain ID: #HW04013)

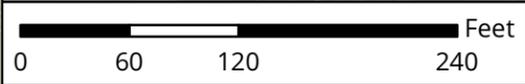
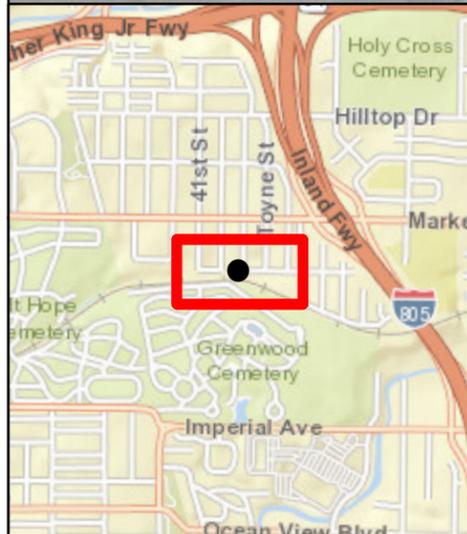
Facility Maintenance Plan

Maintenance Crew	Approximately 10–14 people
Routine Maintenance Procedures	<p>Conduct maintenance procedures as follows:</p> <ol style="list-style-type: none"> 1. Gradall/excavator at access/loading area scoops material from facility and loads dump trucks 2. Bulldozer/track-steer will be used in facility to push material 3. Dump trucks haul material to legal disposal site
Traffic Control	Yes; coordinate with MTS as needed
Additional Maintenance Information	
Pre-Maintenance Meeting	<p>Prior to the start of any maintenance activity, a qualified specialist shall conduct the following on site:</p> <ol style="list-style-type: none"> 1. Review sensitive biological/historical/water quality resources; if present flag/delineate 2. Conduct appropriate training 3. Review BMP installation 4. If needed, review pre- and during-maintenance pumping procedures 5. Conduct pre-maintenance site photo documentation
Biology	<p>Suitable habitat for sensitive species¹:</p> <ol style="list-style-type: none"> 1. Within maintenance area: Yes 2. Adjacent to maintenance area: Yes <p>Activities to be conducted under authority of a qualified biologist:</p> <ol style="list-style-type: none"> 1. Nesting bird surveys required within 72 hours of the start of vegetation clearing from February 1 through September 15
Flow Management	<p>As needed:</p> <ol style="list-style-type: none"> 1. Vactor or pump standing water from facility 2. Install temporary dry-weather flow-diversion berm(s) across facility (upstream and downstream of maintenance area) 3. Position vactor/pump to capture any incoming or contained flows 4. If pumping water through temporary hose(s) to location(s) downstream, allow for distributed discharge and infiltration
Downstream Sensitive Waters	Yes; implement BMPs per Water Pollution Control Plan
BMP Installation	See Water Pollution Control Plan
In-Stream Post-Maintenance Erosion Control Recommendation	As-built includes a riprap energy dissipator at the outlet. Additional analysis is needed to determine if the as-built condition reduces velocities below permissible levels.

¹ Species covered under the Multiple Species Conservation Program, other special-status species, including raptors.

4202 J Street (Drain ID: #HW04013)
Facility Maintenance Plan

Post-Maintenance Procedures	Conduct post-maintenance procedures as follows: <ol style="list-style-type: none">1. Demobilize equipment2. Restore temporary access/loading areas to pre-maintenance condition or as required by the WPCP for final stabilization3. Street Sweeper will sweep/clean debris from street/right-of-way/project area(s), as needed4. Remove temporary BMPs5. Update maintenance record6. Conduct post-maintenance site photo documentation
Other Notes	None



● Drain Structure	Access/Loading/Staging /Stockpiling Area
	Maintenance Area



Notes:
 1. Concrete repair may occur within this facility area.
 2. Access/Loading/Staging/Stockpiling may also occur within City ROW.
 3. Access/Loading/Staging/Stockpiling may be modified during implementation.

November 2019

Map A: General Site Plan
Structure Name: 4202 J Street
IAMFLOC: #HW04013
Facility Maintenance Plan
Municipal Waterways Maintenance Plan



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USGS, AeroGRID, IGN, the GIS User Community, SanGIS, and the City of San Diego.

Facility Maintenance Plan

Facility Name:

1206 Goodyear

IAMFLOC:

#OT04671



1206 Goodyear (Drain ID: #OT04671) Facility Maintenance Plan

Detail

Watershed Management Area (WMA)	San Diego Bay
Hydrologic Subarea	908.22
Drainage Name	South Chollas
Tributaries (listed from downstream to upstream)	South Chollas Creek, South Chollas Creek Encanto Branch
Location Within Watershed	Draining to lower reach of South Chollas Creek, upstream of South Chollas Creek (Alpha)
Location	Nearest Intersection: Boston Avenue and Goodyear Street; access through paved driveway at 3650 Boston Avenue
Adjacent Land Use	Multi-Family Residential, Public Facilities and Utilities, Single Family Residential, Transportation, Vacant
Coastal Zone	No
Structure Type	Outlet
Structure Detail	Outfall headwall
Pipe Diameter and Material	33 inches reinforced concrete pipe
Pipe Length	130 feet
IAMFLOC	#OT04671
SAP ID	SS-004621
Equipment ID	80028356
GIS ID	DS035962
Other Identifiers	None
As-built Drawing Number	20676-D



Figure 1: July 2017, photo of 1206 Goodyear



Figure 2: Vicinity Map of 1206 Goodyear

1206 Goodyear (Drain ID: #OT04671)

Facility Maintenance Plan

Facility Maintenance History

This section describes previous facility maintenance, regulatory approvals, and mitigation.

History of Maintenance	Prior to 2015: Unknown October 2015 and August 2016: Minor maintenance conducted
Past Regulatory Approvals	
CEQA	None
CDP	N/A
SDP	None
404	None
401	None
1602	None
Mitigation for Previous Impacts	No

Hydrology and Hydraulics Summary

This section describes the current conditions in the facility, recommended maintenance, and the potential for erosion following maintenance.

Current Conditions Affecting Facility Capacity	The outlet is a headwall structure with sediment and debris deposition and vegetation growth at the headwall
Maintenance Recommendation	Recommend removal of sediment and vegetation at the culvert headwall to allow outlet to drain Repair rip rap energy dissipator at outlet per as-built (DWG 20676-D)
In-Stream Post-Maintenance Erosion Control Recommendation	As-built includes a riprap energy dissipator at the outlet. Additional analysis is needed to determine if the as-built condition reduces velocities below permissible levels.

1206 Goodyear (Drain ID: #OT04671)

Facility Maintenance Plan

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses and notes to illustrate special habitat and wildlife.

Facility Vegetation	<ul style="list-style-type: none"> Disturbed land Ornamental vegetation
Adjacent Vegetation	<ul style="list-style-type: none"> Developed land Disturbed land Natural flood channel Ornamental vegetation
Habitat and Wildlife	There are no significant biological resources suitable for sensitive species use within or adjacent to the facility
MHPA	The facility is not within or adjacent to the Multi-Habitat Planning Area (MHPA). The structure is surrounded by residential development.
Mitigation Within Facility	None

Water Quality Resource Summary

San Diego Bay Watershed Management Area; Hydrologic Subarea 908.22

Adopted TMDLs	Bacteria Project I; Chollas Creek dissolved copper, lead, and zinc; Chollas Creek diazinon
Highest Priority Water Quality Condition	Bacteria; dissolved copper, lead, and zinc

Chollas Creek Unnamed Tributary

Beneficial Uses	<ul style="list-style-type: none"> Non-contact Water Recreation (REC-2) Warm Freshwater Habitat (WARM) Wildlife Habitat (WILD)
303(d) listed Impairments	No impairments recorded on the 303(d) List

Chollas Creek (First downstream water body)

Beneficial Uses	<ul style="list-style-type: none"> Non-contact Water Recreation (REC-2) Warm Freshwater Habitat (WARM) Wildlife Habitat (WILD)
303(d) listed Impairments	Copper, Indicator Bacteria, Lead, Nitrogen, Pesticides, Phosphorus, Trash, Zinc

**1206 Goodyear (Drain ID: #OT04671)
Facility Maintenance Plan**

Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources

Resource Identified in APE	None
Resource Identified Adjacent to APE	None
Resource Type	N/A

Historical Resources

Resource Identified in APE	None
Potential Historical Resources	None
Constrain Identified	

1206 Goodyear (Drain ID: #OT04671) Facility Maintenance Plan

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-2
EP-BIO-6	MM-BIO-3
Health and Safety/Hazards (HAZ)	MM-BIO-4
EP-HAZ-3	MM-BIO-6
Hydrology (HYD)	Noise (NOI)
EP-HYD-1	MM-NOI-1
Solid Waste (SW)	
EP-SW-2	
EP-SW-3	
EP-SW-4	
EP-SW-5	
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

1206 Goodyear (Drain ID: #OT04671)

Facility Maintenance Plan

Maintenance Methods

This section describes the specific activities, equipment, and methodology for maintenance of this facility including a general site plan (Map A). It is intended to be used as a guide for the maintenance crew.

Structure Name	1206 Goodyear
Coastal Zone	No
MWMP Proposed Maintenance	Maintenance of structure per as-built dimensions and Hydrology and Hydraulics Recommendation
Hydrology and Hydraulics Recommendation	Recommend removal of sediment and vegetation at the culvert headwall to allow outlet to drain Repair rip rap energy dissipator at outlet per as-built (DWG 20676-D)
Maintenance Activities	Vegetation grubbing, trimming, and removal Invasive plant species treatment and removal Sediment removal Concrete repair
Maintenance Method	Excavation; mechanized equipment outside of facility Temporary access/loading Temporary staging Temporary diversions Hand removal of vegetation Hand removal of sediment
Bank Repair	No
Concrete Repair	Yes; see Appendix A-4
Concrete/Gabion Structure Repair and Maintenance	No
Culvert Maintenance	Yes; see Appendix A-4
Post-Maintenance Erosion Control Recommendation	Subject to further analysis to determine need and type
Trash/Debris Fence Repair and Maintenance	No
Structure Type	Outlet
Existing Plans and/or As-Builts?	Yes; 20676-D
Structure Size	33 inches
Structure Detail	Outfall headwall
Maintenance Area Substrate	Earthen
Authorized Facility Maintenance Area	Length: 35 feet Width: 5 feet
Maintenance Quantities	To be determined at time of maintenance
Access/Loading/Staging/Stockpiling Area(s)	Designated areas on Map A or within City ROW may be used for access, loading, staging, and/or stockpiling. The boundaries of these areas may also be modified as long as changes do not result in new significant environmental impacts.
Equipment	Gradall/excavator, dump truck, vactor, fuel-powered hand tools

1206 Goodyear (Drain ID: #OT04671)

Facility Maintenance Plan

Schedule	Up to approximately 2 working days
Maintenance Crew	Approximately 3-6 people
Routine Maintenance Procedures	<p>Conduct maintenance procedures as follows:</p> <ol style="list-style-type: none"> 1. Gradall/excavator is stationed above structure in access/loading area 2. Gradall/excavator scoops material in front of structure 3. Gradall/excavator dumps material into dump truck 4. Vactor stationed at access/loading assists in removal of material 5. Workers may assist removing material using hand tools 6. Dump truck and vactor haul material to legal disposal site
Traffic Control	No
Additional Maintenance Information	
Pre-Maintenance Meeting	<p>Prior to the start of any maintenance activity, a qualified specialist shall conduct the following on site:</p> <ol style="list-style-type: none"> 1. Review sensitive biological/historical/water quality resources; if present flag/delineate 2. Conduct appropriate training 3. Review BMP installation 4. If needed, review pre- and during-maintenance pumping procedures 5. Conduct pre-maintenance site photo documentation
Biology	<p>Suitable habitat for sensitive species¹:</p> <ol style="list-style-type: none"> 1. Within maintenance area: No 2. Adjacent to maintenance area: No <p>Activities to be conducted under authority of a qualified biologist:</p> <ol style="list-style-type: none"> 1. Nesting bird surveys required within 72 hours of the start of vegetation clearing from February 1 through September 15
Flow Management	<p>As needed:</p> <ol style="list-style-type: none"> 1. Vactor or pump standing water from facility 2. Install temporary dry-weather flow-diversion berm(s) across facility (upstream and downstream of maintenance area) 3. Position vactor/pump to capture any incoming or contained flows 4. If pumping water through temporary hose(s) to location(s) downstream, allow for distributed discharge and infiltration
Downstream Sensitive Waters	Yes; implement BMPs per Water Pollution Control Plan
BMP Installation	See Water Pollution Control Plan
In-Stream Post-Maintenance Erosion Control Recommendation	As-built includes a riprap energy dissipator at the outlet. Additional analysis is needed to determine if the as-built condition reduces velocities below permissible levels.

¹ Species covered under the Multiple Species Conservation Program, other special-status species, including raptors.

1206 Goodyear (Drain ID: #OT04671) Facility Maintenance Plan

Post-Maintenance Procedures	Conduct post-maintenance procedures as follows: <ol style="list-style-type: none">1. Demobilize equipment2. Restore temporary access/loading areas to pre-maintenance condition or as required by the WPCP for final stabilization3. Street Sweeper will sweep/clean debris from street/right-of-way/project area(s), as needed4. Remove temporary BMPs5. Update maintenance record6. Conduct post-maintenance site photo documentation
Other Notes	None

APPENDIX A-4
Additional Maintenance Methods
(Concrete Repair and Post-Maintenance
Erosion Control)

Concrete Repair Maintenance Methods

Facility Group/Segment¹	As-needed for all MWMP Facilities with existing concrete lining
Description & Purpose	Concrete repair/replacement to restore facilities to existing constructed or original as-built conditions
Maintenance Sites	Within concrete lined and/or concrete banked facilities
Materials	Cement, sand, aggregate, rebar, wire mesh
Expected Lifespan	N/A
Equipment²	Bobcat/skid-steer, bulldozer/track-steer, Gradall/excavator, loader, backhoe, dump truck, trash pump, vactor, fuel-powered hand tools, wheelbarrow, sweeper, cement truck, tow-behind mixer, concrete truck (with hoses/pumps), concrete saw, impulse/jack-hammer (attachments)
Maintenance Procedures	<p>Minor repair/replacement by hand:</p> <ol style="list-style-type: none"> 1. With hand tools (e.g., shovels), remove material (e.g., vegetation, debris, soil/sediment) limited to work area 2. Prepare surface (work area) to be repaired/replaced by removing cracked, damaged or deteriorated concrete and cleaning surface. Work area should be clean, dry, rough, and dust-free. 3. Imported material may be pumped, wheel-barrowed or transported by truck/loader, etc. to work area. On-site materials may also be used for aggregate or backfill to grade, if appropriate. 4. Regrade work area using rake or similar hand tool to recontour any underlying surficial soil before bonding agent/concrete is applied, if needed 5. Concrete Installation: <ol style="list-style-type: none"> a. Install a wire-mesh lining or rebar to tie into existing concrete per as-built or specifications, if needed b. Pour/pump concrete repair mix to fill/seal cracks or to be formed to replace missing or deteriorated concrete per manufacturer's instructions. Material, such as conventional cement materials with an aggregate component, may be wheel-barrowed to work area and poured; or pumped/sprayed from concrete truck via hoses/pumps. c. Apply bonding agent to cracks or deteriorated concrete per manufacturer's instructions, if needed d. Use hand tools to smooth concrete to grade 6. Place/transport material in a portable trash bin, wheel-barrow, or

¹ Facility-specific FMPs provide details on existing plans or as-builts available for a segment or facility group and will show access, loading, staging and/or stockpiling areas.

² The equipment list is typical of various concrete repair jobs, but not all equipment listed will be used depending on the type of installation and the facility's characteristics

Concrete Repair Maintenance Methods

	<p>by equipment to loading/access area, as needed</p> <p>7. Equipment loads material from access/loading area into dump truck to be transported to approved disposal site</p> <p>Minor or Major repair/replacement using equipment</p> <p>1. With equipment (e.g., Bobcat/skid-steer, bulldozer/track-steer, Gradall/excavator) and/or hand tools (e.g., shovels), remove material (e.g., vegetation, debris, soil/sediment) within work area. Equipment/crew may work within channel or from an access area outside the channel, depending on facility characteristics. Reference facility-specific FMP for access areas.</p> <p>2. Prepare surface (work area) to be repaired/replaced. Equipment with corresponding impulse/jack-hammer attachments may be used to break up damaged concrete.</p> <p>3. Remove cracked, damaged or deteriorated concrete and clean surface. Work area should be clean, dry, rough, and dust-free.</p> <p>4. Excavate (e.g., with equipment or hand shoveled) work area and backfill with suitable soil or material per City engineering standards, if needed</p> <p>5. Imported material may be pumped, wheel-barrowed or transported by truck/loader, etc. to work area. On-site materials may also be used for aggregate or backfill to grade, if appropriate.</p> <p>6. For minor repair/replacement, regrade surficial soil using hand tools (e.g., rake) to recontour any underlying surficial soil before bonding agent/concrete is applied, if needed. For major repair/replacement, use mechanized equipment to regrade and excavate 1-2 feet below surficial soil.</p> <p>7. Concrete Installation:</p> <ul style="list-style-type: none">a. Install wire-mesh lining or rebar to tie into existing concrete per as-built or specifications, if neededb. Pour/pump concrete repair mix to fill/seal cracks or to be formed to replace missing or deteriorated concrete per manufacturer's instructions. Material, such as conventional cement materials with an aggregate component, may be wheel-barrowed to work area and poured; or pumped/sprayed from concrete truck via hoses/pumps.c. Apply bonding agent to cracks or deteriorated concrete per manufacturer's instructions, if neededd. Use hand tools to smooth concrete to grade <p>8. Place/transport material in a portable trash bin, wheel-barrow, or by equipment to loading/access area, as needed</p> <p>9. Equipment loads material from access/loading area into dump truck to be transported to approved disposal site</p>
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Concrete Repair Maintenance Methods

Maintenance Frequency	As-needed
Schedule	Approximately 7-21 working days
Additional Maintenance Information	
Pre-Maintenance Meeting	<p>Prior to the start of any maintenance activity, a qualified specialist(s) shall conduct the following on site:</p> <ol style="list-style-type: none"> 1. Review sensitive biological, historical, and water quality resources; if present, flag/delineate 2. Conduct appropriate training 3. Review Best Management Practices (BMP) installation 4. If needed, review pre- and during-maintenance pumping procedure 5. Conduct pre-maintenance site photo documentation
Biology	Reference facility-specific FMP
Flow Management	<p>As needed:</p> <ol style="list-style-type: none"> 1. Vactor or pump standing water from channel 2. Install temporary dry-weather flow-diversion berm(s) across channel (upstream and downstream of maintenance area) 3. Position vactor/pump to capture any incoming or contained flows 4. If pumping water through temporary hose(s) to location(s) downstream, allow for distributed discharge and infiltration
Downstream Sensitive Waters	Reference facility-specific FMP
BMP Installation	See Water Pollution Control Plan (WPCP)
Post-Maintenance Procedures	<p>Conduct post-maintenance procedures as required by the WPCP including the following:</p> <ol style="list-style-type: none"> 1. Demobilize equipment 2. Return temporary access/loading area(s) to pre-maintenance or habitat type 3. Remove temporary BMPs 4. Update maintenance record 5. Conduct post-maintenance site photo documentation
Other Notes	None

Concrete/Gabion Structure

Repair and Maintenance Methods

Facility Group/Segment¹	As-needed for all MWMP Facilities with existing concrete or gabion structure(s)
Description & Purpose	Concrete/gabion structure repair/replacement to restore facilities to existing constructed or original as-built conditions
Maintenance Sites	Generally located at existing concrete/gabion structures
Materials	Concrete, imported rock, metal wire mesh gabion, rebar, wire mesh
Expected Lifespan	N/A
Equipment²	Bobcat/skid-steer, bulldozer/track-steer, Gradall/excavator, loader, backhoe, dump truck, trash pump, vactor, fuel-powered hand tools, wheelbarrow, sweeper, cement truck, tow-behind mixer, concrete truck (with hoses/pumps), concrete saw, impulse/jack-hammer (attachments)
Maintenance Procedures	<p>Minor repair/replacement by hand:</p> <ol style="list-style-type: none"> 1. With hand tools (e.g., shovels), remove material (e.g., vegetation, debris, soil/sediment) limited to work area 2. Prepare surface (work area) to be repaired/replaced by removing cracked, damaged or deteriorated concrete and cleaning surface. Work area should be clean, dry, rough, and dust-free. 3. Imported material may be pumped, wheel-barrowed or transported by truck/loader, etc. to work area. On-site materials may also be used for aggregate or backfill to grade, if appropriate. 4. Regrade work area using rake or similar hand tool to recontour any underlying surficial soil before bonding agent/concrete is applied or gabion is replaced, if needed 5. Concrete Installation: <ol style="list-style-type: none"> a. Install a wire-mesh lining or rebar to tie into existing concrete per as-built or specifications, if needed b. Pour/pump concrete repair mix to fill/seal cracks or to be formed to replace missing or deteriorated concrete per manufacturer's instructions. Material, such as conventional cement materials with an aggregate component, may be wheel-barrowed to work area and poured; or pumped/sprayed from concrete truck via hoses/pumps. c. Apply bonding agent to cracks or pour/pump concrete repair mix to fill/seal cracks or deteriorated concrete per manufacturer's instructions, if needed

¹ Facility-specific FMPs provide details on existing plans or as-builts available for a segment or facility group and will show access, loading, staging and/or stockpiling areas.

² The equipment list is typical of various concrete/gabion repair jobs, but not all equipment listed will be used depending on the type of installation and the facility's characteristics

Concrete/Gabion Structure

Repair and Maintenance Methods

	<p>d. Use hand tools to smooth concrete to grade</p> <p>6. Gabion Installation:</p> <p>a. Assemble gabion wire mesh boxes and place into facility, connecting adjacent units to form a continuous structure, as needed</p> <p>b. Manually fill gabion baskets with rocks to minimize voids and damage to the wire mesh. Fill in stages to avoid local deformation</p> <p>c. Level off rock fill 20–30 millimeters above the top of the mesh then folder over lid and lace along all edges to allow for settlement</p> <p>7. Place/transport material in a portable trash bin, wheel-barrow, or by equipment to loading/access area, as needed</p> <p>8. Equipment loads material from access/loading area into dump truck to be transported to approved disposal site</p> <p>Minor or Major repair/replacement using equipment:</p> <p>1. With equipment (e.g., bobcat/skid-steer, bulldozer/track-steer, Gradall/excavator) and/or hand tools (e.g., shovels), remove material (e.g., vegetation, debris, soil/sediment) within work area. Equipment/crew may work within channel or from an access/loading area outside the channel, depending on facility characteristics. Reference facility-specific FMP for access areas.</p> <p>2. Prepare surface (work area) to be repaired/replaced. Equipment with corresponding impulse/jack-hammer attachments may be used to break up damaged concrete.</p> <p>3. Remove cracked, damaged or deteriorated concrete and clean surface. Work area should be clean, dry, rough, and dust-free.</p> <p>4. Excavate (e.g., with equipment or hand shoveled) work area and backfill with suitable soil or material per City engineering standards, if needed</p> <p>5. Imported material may be pumped, wheel-barrowed or transported by truck/loader, etc. to work area. On-site materials may also be used for aggregate or backfill to grade, if appropriate.</p> <p>6. For minor repair/replacement, regrade surficial soil using hand tools (e.g., rake) before bonding agent/concrete is applied or gabion is replaced, if needed. For major repair/replacement, use mechanized equipment to regrade and excavate 1-2 feet below surficial soil.</p> <p>7. Concrete installation:</p> <p>a. Install a wire-mesh lining or rebar to tie into existing concrete per as-built or specifications, if needed</p> <p>b. Pour/pump concrete repair mix to fill/seal cracks or to be formed to replace missing or deteriorated concrete per</p>
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Concrete/Gabion Structure Repair and Maintenance Methods

	<p>manufacturer's instructions. Material, such as conventional cement materials with an aggregate component, may be wheelbarrowed to work area and poured; or pumped/sprayed from concrete truck via hoses/pumps.</p> <p>c. Apply bonding agent to cracks or deteriorated concrete per manufacturer's instructions, if needed</p> <p>d. Use hand tools to smooth concrete to grade</p> <p>8. Gabion installation:</p> <p>a. Assemble gabion wire mesh boxes and place into facility, connecting adjacent units to form a continuous structure, as needed</p> <p>b. Manually fill gabion baskets with rocks to minimize voids and damage to the wire mesh. Fill in stages to avoid local deformation</p> <p>c. Level off rock fill 20–30 millimeters above the top of the mesh then folder over lid and lace along all edges to allow for settlement</p> <p>9. Place/transport material in a portable trash bin, wheel-barrow, or by equipment to loading/access area, as needed</p> <p>10. Equipment loads material from access/loading area into dump truck to be transported to approved disposal site</p>
Maintenance Frequency	As-needed
Schedule	Approximately 7–21 working days
Additional Maintenance Information	
Pre-Maintenance Meeting	<p>Prior to the start of any maintenance activity, a qualified specialist(s) shall conduct the following on site:</p> <ol style="list-style-type: none"> 1. Review sensitive biological, historical, and water quality resources; if present, flag/delineate 2. Conduct appropriate training 3. Review Best Management Practices (BMP) installation 4. If needed, review pre- and during-maintenance pumping procedure 5. Conduct pre-maintenance site photo documentation
Biology	Reference facility-specific FMP
Flow Management	<p>As needed:</p> <ol style="list-style-type: none"> 1. Vector or pump standing water from channel 2. Install temporary dry-weather flow-diversion berm(s) across channel (upstream and downstream of maintenance area) 3. Position vector/pump to capture any incoming or contained flows 4. If pumping water through temporary hose(s) to location(s) downstream, allow for distributed discharge and infiltration

Concrete/Gabion Structure Repair and Maintenance Methods

Downstream Sensitive Waters	Reference facility-specific FMP
BMP Installation	See Water Pollution Control Plan (WPCP)
Post-Maintenance Procedures	Conduct post-maintenance procedures as required by the WPCP including the following: <ol style="list-style-type: none">1. Demobilize equipment2. Return temporary access/loading area(s) to pre-maintenance or habitat type3. Remove temporary BMPs4. Update maintenance record5. Conduct post-maintenance site photo documentation
Other Notes	None

Culvert Maintenance Maintenance Methods

Facility Group/Segment¹	As-needed for all MWMP Facilities with existing culverts
Description & Purpose	Maintenance of culverts per as-built/estimated original design dimensions, and Hydrology and Hydraulics recommendation
Maintenance Sites	Generally located at the inlet, outlet, and within the culvert as-needed and when accessible
Materials	None
Expected Lifespan	N/A
Equipment²	Bobcat/skid-steer, bulldozer/track-steer, Gradall/excavator, loader, backhoe, dump truck, trash pump, vactor, fuel-powered hand tools, wheelbarrow, sweeper
Maintenance Procedures	<p>Mechanized Equipment:</p> <ol style="list-style-type: none"> 1. Equipment (e.g., Bobcat/skid-steer, bulldozer/track-steer, tractor, Gradall/excavator, loader) enters/is lowered into facility; or stationed outside/above facility in access/loading area or within public right-of-way. 2. Equipment scoops material from culvert and pushes material (e.g., vegetation, debris, soil/sediment) to access/loading area 3. Equipment loads material from access/loading area into dump truck to be transported to approved disposal site <p>Vactor:</p> <ol style="list-style-type: none"> 1. Vactor is stationed outside/above facility in access/loading area or within public right-of-way, depending on facility characteristics. Reference facility-specific FMP for access areas. 2. Crew uses water from vactor/water truck/hydrant to flush material from culvert 3. Equipment (e.g., Gradall/excavator/backhoe) stationed outside/above facility within access/loading area may assist in scooping/pushing material (e.g., vegetation, debris, soil/sediment) from culvert to vactor or into a dump truck 4. Vactor vacuums material from culvert (for small quantities) 5. Material may need to be temporarily stockpiled and dewatered 6. Vactor/dump truck disposes/decants material into approved disposal site
Maintenance Frequency	As-needed
Schedule	Approximately 5–30 working days

¹ Facility-specific FMPs provide details on existing plans or as-builts available for a segment or facility group and will show access, loading, staging and/or stockpiling areas.

² The equipment list is typical of various culvert maintenance jobs, but not all equipment listed will be used depending on the type of installation and the facility's characteristics

Culvert Maintenance Maintenance Methods

Additional Maintenance Information	
Pre-Maintenance Meeting	<p>Prior to the start of any maintenance activity, a qualified specialist(s) shall conduct the following on site:</p> <ol style="list-style-type: none"> 1. Review sensitive biological, historical, and water quality resources; if present, flag/delineate 2. Conduct appropriate training 3. Review Best Management Practices (BMP) installation 4. If needed, review pre- and during-maintenance pumping procedure 5. Conduct pre-maintenance site photo documentation
Biology	Reference facility-specific FMP
Flow Management	<p>As needed:</p> <ol style="list-style-type: none"> 1. Vactor or pump standing water from channel 2. Install temporary dry-weather flow-diversion berm(s) across channel (upstream and downstream of maintenance area) 3. Position vactor/pump to capture any incoming or contained flows 4. If pumping water through temporary hose(s) to location(s) downstream, allow for distributed discharge and infiltration
Downstream Sensitive Waters	Reference facility-specific FMP
BMP Installation	See Water Pollution Control Plan (WPCP)
Post-Maintenance Procedures	<p>Conduct post-maintenance procedures as required by the WPCP including the following:</p> <ol style="list-style-type: none"> 1. Demobilize equipment 2. Return temporary access/loading area(s) to pre-maintenance or habitat type 3. Remove temporary BMPs 4. Update maintenance record 5. Conduct post-maintenance site photo documentation
Other Notes	None

Debris/Trash Fence

Repair and Maintenance Methods

Facility Group/Segment¹	As-needed for all MWMP Facilities with existing debris/trash fence(s)
Description & Purpose	Repair and/or maintenance of existing facility debris/trash fences to original as-built or standard drawing
Maintenance Sites	Generally located upstream of bridge or culvert openings
Materials	Minimum 3" steel post, 5/8 inch steel tension cable, 9 gage galvanized steel wire fence, concrete
Expected Lifespan	N/A
Equipment²	Kubota or similar tractor, Bobcat/skid-steer, bulldozer/track-steer, Gradall/excavator, mini-excavator, loader, backhoe, cement truck, concrete pump, tow-behind mixer, vactor, fuel-powered hand tools (weed whipper), wheelbarrow/buckets, hand tools (shovels, post-hole digger)
Maintenance Procedures	<p>Maintenance: Mechanized Equipment outside facility:</p> <ol style="list-style-type: none"> 1. Equipment (e.g., Gradall/excavator, backhoe) is stationed outside/above facility in access/loading area or within public right-of-way 2. Equipment excavates work area directly in front of (downstream) and/or behind (upstream) debris/trash fence 3. Equipment loads material (e.g., vegetation, debris, soil/sediment) from access/loading area into dump truck to be transported to approved disposal site <p>Maintenance: Mechanized Equipment and/or crews using hand tools inside facility:</p> <ol style="list-style-type: none"> 1. Crew with hand tools (shovels or fuel-powered hand tools) and/or equipment (e.g., Bobcat/skid-steer, bulldozer/track-steer, loader, tractor) enters/is lowered into facility at access/loading area 2. Crew/equipment excavates area directly in front of (downstream) and/or behind (upstream) debris/trash fence 3. Crew/equipment pushes/transport material (e.g., vegetation, debris, soil/sediment) to access/loading area 4. Equipment loads material from access/loading area into dump truck to be transported to approved disposal site <p>Repair using hand tools and/or equipment:</p> <ol style="list-style-type: none"> 1. Crew/equipment (e.g., Bobcat/skid-steer, shovel) enters/is lowered into facility; or stationed outside/above facility in access/loading area or within public right-of-way

¹ Facility-specific FMPs provide details on existing plans or as-builts available for a segment or facility group and will show access, loading, staging and/or stockpiling areas.

² The equipment list is typical of various debris/trash fence repair jobs, but not all equipment listed will be used depending on the type of installation and the facility's characteristics

Debris/Trash Fence

Repair and Maintenance Methods

	<p>2. Crew/equipment prepares/excavates area where debris/trash fence is to be repaired</p> <p>3. Crew repairs/re-installs debris/trash fence with same or similar material</p> <p>4. Equipment loads material (e.g., vegetation, debris, soil/sediment) from access/loading area into dump truck to be transported to approved disposal site</p> <p>Repair of concrete footing for debris/trash fence:</p> <p>1. Crew/equipment (e.g., Bobcat/skid-steer with auger attachment, mini excavator, post-hole digger) prepares/excavates area where debris trash fence is to be repaired/re-installed</p> <p>2. Crew forms area for concrete footing and (if needed) place/tie reinforcement rebar.</p> <p>3. Crew pours concrete, places poles/supports, and finishes concrete</p> <p>4. Crew strings/attaches debris/trash fencing with same or similar material</p> <p>5. Equipment loads material (e.g., vegetation, debris, soil/sediment) from access/loading area into dump truck to be transported to approved disposal site</p>
Maintenance Frequency	As-needed
Schedule	Approximately 1–20 working days
Additional Maintenance Information	
Pre-Maintenance Meeting	<p>Prior to the start of any maintenance activity, a qualified specialist(s) shall conduct the following on site:</p> <ol style="list-style-type: none"> 1. Review sensitive biological, historical, and water quality resources; if present, flag/delineate 2. Conduct appropriate training 3. Review Best Management Practices (BMP) installation 4. If needed, review pre- and during-maintenance pumping procedure 5. Conduct pre-maintenance site photo documentation
Biology	Reference facility-specific FMP
Flow Management	<p>As needed:</p> <ol style="list-style-type: none"> 1. Vactor or pump standing water from channel 2. Install temporary dry-weather flow-diversion berm(s) across channel (upstream and downstream of maintenance area) 3. Position vactor/pump to capture any incoming or contained flows 4. If pumping water through temporary hose(s) to location(s) downstream, allow for distributed discharge and infiltration
Downstream Sensitive Waters	Reference facility-specific FMP

Debris/Trash Fence Repair and Maintenance Methods

BMP Installation	See Water Pollution Control Plan (WPCP)
Post-Maintenance Procedures	Conduct post-maintenance procedures as required by the WPCP including the following: <ol style="list-style-type: none">1. Demobilize equipment2. Return temporary access/loading area(s) to pre-maintenance or habitat type3. Remove temporary BMPs4. Update maintenance record5. Conduct post-maintenance site photo documentation
Other Notes	None

Anchored Chain-link/wire Fence Installation and Maintenance Methods

Facility Group/Segment¹	As-needed for MWMP Facilities that require post-maintenance erosion control
Description & Purpose	Installation of anchored chain-link/wire fence to dissipate incoming flows and reduce velocities to pre-maintenance levels. Methods are intended to be temporary (chain-link/wire fence would be removed following vegetation establishment)/semi-permanent (anchors for chain link/wire would be permanent). Anchored chain-link/wire reference: Public Works Standard Drawings – debris fence (City of San Diego Public Works 2016); FAO 1986.
Installation Sites	Generally located immediately upstream of stream segments where erosive velocities (above pre-maintenance conditions) are expected
General Design Guidelines	<ul style="list-style-type: none"> • Anchored chain-link/wire fences are made of posts that are anchored into the ground and wire or chain-link fencing that is placed across the ditch as a temporary structure • The fence is constructed either straight across the channel or in a crescent shape with its open end upstream • Concrete footings may be permanent and re-used, as necessary, to re-install the fence • The fences/check dams should be no taller than 3 feet
Materials	Stainless steel posts, chain-link/wire fencing, and/or concrete footings
Expected Lifespan	Approximately 2–6 years for semi-permanent applications
Equipment²	Cement truck and pumps, Bobcat/skid-steer, bulldozer/track-steer, Gradall/excavator, loader, backhoe, dump truck, trash pump, vactor, wheelbarrow, sweeper, fuel-powered hand tools

¹ Facility-specific FMPs provide details on existing plans or as-builts available for a segment or facility group and will show access, loading, staging and/or stockpiling areas.

² The equipment list is typical of various dissipator installation jobs, but not all equipment listed will be used depending on the type of installation and the facility's characteristics

Anchored Chain-link/wire Fence Installation and Maintenance Methods

Installation Procedures	<p><u>Anchored Chain-link/wire Fence Installation (follow manufacturer's specification for installation and City engineering standards):</u></p> <ol style="list-style-type: none"> 1. With equipment (e.g., Bobcat/skid-steer, bulldozer/track-steer, Gradall/excavator) and/or hand tools (e.g., shovels), remove material (e.g., vegetation, debris, soil/sediment) within work area. Equipment/crew may work within channel or from an access area outside the channel, depending on facility characteristics. Reference facility-specific FMP for access areas. 2. Prepare work area for installation 3. Excavate area and backfill with suitable soil or concrete at the post location(s) per City engineering standards, if needed. Imported material may be pumped, wheel-barrowed or transported by truck/loader, etc. to work area. Onsite materials may also be used for aggregate or backfill to grade, if appropriate. 4. Regrade work area using rake or similar hand tool to recontour any underlying surficial soil before fence is installed 5. Install fence posts (and concrete footings when applicable) 1' to a maximum of 4' apart based on fence type 6. Connect chain-link or wires to the fence posts 7. Place/transport material in a portable trash bin, wheel-barrow, or by equipment to loading/access area, as needed 8. Equipment loads material from access/loading area into dump truck to be transported to approved disposal site
Additional Maintenance Information	
Pre-Maintenance Meeting	<p>Prior to the start of any maintenance activity, a qualified specialist(s) shall conduct the following on site:</p> <ol style="list-style-type: none"> 1. Review sensitive biological, historical, and water quality resources; if present, flag/delineate 2. Conduct appropriate training 3. Review Best Management Practices (BMP) installation 4. If needed, review pre- and during-maintenance pumping procedure 5. Conduct pre-maintenance site photo documentation
Biology	Reference facility-specific FMP
Flow Management	<p>As needed:</p> <ol style="list-style-type: none"> 1. Vactor or pump standing water from channel 2. Install temporary dry-weather flow-diversion berm(s) across channel (upstream and downstream of maintenance area) 3. Position vactor/pump to capture any incoming or contained flows 4. If pumping water through temporary hose(s) to location(s) downstream, allow for distributed discharge and infiltration

Anchored Chain-link/wire Fence Installation and Maintenance Methods

Downstream Sensitive Waters	Reference facility-specific FMP
BMP Installation	See Water Pollution Control Plan (WPCP)
Post-Maintenance Procedures	Conduct post-maintenance procedures as required by the WPCP including the following: <ol style="list-style-type: none">1. Demobilize equipment2. Return temporary access/loading area(s) to pre-maintenance or habitat type3. Remove temporary BMPs4. Update maintenance record5. Conduct post-maintenance site photo documentation
Other Notes	None

Anchored Wooden/Brushwood Fence Installation and Maintenance Methods

Facility Group/Segment¹	As-needed for MWMP Facilities that require post-maintenance erosion control
Description & Purpose	Installation of anchored brushwood fence to dissipate incoming flows and reduce velocities to pre-maintenance levels. Methods are intended to be temporary/semi-permanent (anchored wooden/brushwood would degrade/integrate with stream bed/vegetation). Anchored wooden/brushwood fence references: FAO 1986.
Installation Sites	Generally located immediately upstream of stream segments where erosive velocities (above pre-maintenance conditions) are expected
General Design Guidelines	<ul style="list-style-type: none"> • Anchored wooden check dams or brushwood fences are made of posts that are anchored into the ground and brush/wood that spans the ditch as a temporary structure • The fence is constructed either straight across the channel or in a crescent shape with its open end upstream • Concrete footings may be permanent and re-used, as necessary, to re-install the fence • The fences/check dams should be no taller than 3 fet
Materials	Wooden or stainless steel posts, salvaged/imported trees and brush, planks/heavy boards, and/or concrete footings
Expected Lifespan	Approximately less than 2 years for temporary applications to up to 6 years for semi-permanent applications
Equipment²	Cement truck and pumps, Bobcat/skid-steer, bulldozer/track-steer, Gradall/excavator, loader, backhoe, dump truck, trash pump, vactor, wheelbarrow, sweeper, fuel-powered hand tools

¹ Facility-specific FMPs provide details on existing plans or as-builts available for a segment or facility group and will show access, loading, staging and/or stockpiling areas.

² The equipment list is typical of various dissipator installation jobs, but not all equipment listed will be used depending on the type of installation and the facility's characteristics

Anchored Wooden/Brushwood Fence Installation and Maintenance Methods

Installation Procedures	<p><u>Anchored Wooden/Brushwood Fence Installation (follow manufacturer's specification for installation and City engineering standards):</u></p> <ol style="list-style-type: none"> 1. With equipment (e.g., Bobcat/skid-steer, bulldozer/track-steer, Gradall/excavator) and/or hand tools (e.g., shovels), remove material (e.g., vegetation, debris, soil/sediment) within work area. Equipment/crew may work within channel or from an access area outside the channel, depending on facility characteristics. Reference facility-specific FMP for access areas. 2. Prepare work area for installation 3. Excavate area and backfill with suitable soil or concrete at the post location(s) per City engineering standards, if needed. Imported material may be pumped, wheel-barrowed or transported by truck/loader, etc. to work area. Onsite materials may also be used for aggregate or backfill to grade, if appropriate. 4. Regrade work area using rake or similar hand tool to recontour any underlying surficial soil before fence is installed 5. Install fence posts (and concrete footings when applicable) 1' to a maximum of 4' apart based on fence type 6. Use flexible branches to weave between the posts or set wooden planks between two rows of posts. Use wire to hold the top of the wooden check dam in place. Onsite materials may be salvaged for brushwood fence materials. 7. Place/transport material in a portable trash bin, wheel-barrow, or by equipment to loading/access area, as needed 8. Equipment loads material from access/loading area into dump truck to be transported to approved disposal site
Additional Maintenance Information	
Pre-Maintenance Meeting	<p>Prior to the start of any maintenance activity, a qualified specialist(s) shall conduct the following on site:</p> <ol style="list-style-type: none"> 1. Review sensitive biological, historical, and water quality resources; if present, flag/delineate 2. Conduct appropriate training 3. Review Best Management Practices (BMP) installation 4. If needed, review pre- and during-maintenance pumping procedure 5. Conduct pre-maintenance site photo documentation
Biology	Reference facility-specific FMP

Anchored Wooden/Brushwood Fence Installation and Maintenance Methods

Flow Management	As needed: <ol style="list-style-type: none"> 1. Vactor or pump standing water from channel 2. Install temporary dry-weather flow-diversion berm(s) across channel (upstream and downstream of maintenance area) 3. Position vactor/pump to capture any incoming or contained flows 4. If pumping water through temporary hose(s) to location(s) downstream, allow for distributed discharge and infiltration
Downstream Sensitive Waters	Reference facility-specific FMP
BMP Installation	See Water Pollution Control Plan (WPCP)
Post-Maintenance Procedures	Conduct post-maintenance procedures as required by the WPCP including the following: <ol style="list-style-type: none"> 1. Demobilize equipment 2. Return temporary access/loading area(s) to pre-maintenance or habitat type 3. Remove temporary BMPs 4. Update maintenance record 5. Conduct post-maintenance site photo documentation
Other Notes	None

Coir Mat

Installation and Maintenance Methods

Facility Group/Segment¹	As-needed for MWMP Facilities that require post-maintenance erosion control
Description & Purpose	Installation of Coir Mat to stabilize bed and banks as a result of increased post-maintenance velocities. Coir Mats are open-weaved textiles made of natural fibers that can be used to stabilize disturbed bed and banks and allow vegetation growth.
Installation Sites	Generally located where erosive velocities (above pre-maintenance conditions) are expected
General Design Guidelines	<ul style="list-style-type: none"> • Coir mat is intended to be temporary to semi-permanent • Will degrade/integrate with stream bed/vegetation • The weight of the mat is determined by the velocity within the channel or ditch • Seeding of the matting is dependent on the type of matting used and at the direction of the landscape architect • Manufacturer's installation instructions and specifications should be followed. The Installation Procedures section below describes the general installation process.
Materials	Coir mat, staples/hooks, or stakes
Expected Lifespan	Approximately less than 2 years for temporary applications to up to 6 years for semi-permanent applications
Equipment²	Bobcat/skid-steer, bulldozer/track-steer, Gradall/excavator, loader, backhoe, dump truck, trash pump, vactor, wheelbarrow, sweeper, fuel-powered hand tool

¹ Facility-specific FMPs provide details on existing plans or as-builts available for a segment or facility group and will show access, loading, staging and/or stockpiling areas.

² The equipment list is typical of various channel stabilization jobs, but not all equipment listed will be used depending on the type of installation and the facility's characteristics

Coir Mat

Installation and Maintenance Methods

<p>Installation Procedures</p>	<p><u>Coir Mat Installation (follow manufacturer's specification for installation and City engineering standards):</u></p> <ol style="list-style-type: none"> 1. With equipment (e.g., Bobcat/skid-steer, bulldozer/track-steer, Gradall/excavator) and/or hand tools (e.g., shovels), remove material (e.g., vegetation, debris, soil/sediment) within work area. Equipment/crew may work within channel or from an access area outside the channel, depending on facility characteristics. Reference facility-specific FMP for access areas. 2. Prepare work area for installation 3. Excavate area and backfill with suitable soil per City engineering standards, if needed. Imported material may be pumped, wheel-barrowed or transported by truck/loader, etc. to work area. Onsite materials may also be used for aggregate or backfill to grade, if appropriate. 4. Regrade work area using rake or similar hand tool to recontour any underlying surficial soil before coir mat is installed 5. If the coir mat is a small opening mesh, the soil should be prepped and seeding should be done prior to installation of the matting 6. Dig a small trench at the top and bottom of the slope or edges of the channel/ditch to secure the matting 7. Install the matting by overlapping the mats a minimum of 6 to 8 inches and secure the mats with staples or stakes 8. Secure both ends of the mat with stakes/staples/hooks and fill in the trenches 9. If applicable, seed the matting 10. Place/transport material in a portable trash bin, wheel-barrow, or by equipment to loading/access area, as needed 11. Equipment loads material from access/loading area into dump truck to be transported to approved disposal site
<p>Additional Maintenance Information</p>	
<p>Pre-Maintenance Meeting</p>	<p>Prior to the start of any maintenance activity, a qualified specialist(s) shall conduct the following on site:</p> <ol style="list-style-type: none"> 1. Review sensitive biological, historical, and water quality resources; if present, flag/delineate 2. Conduct appropriate training 3. Review Best Management Practices (BMP) installation 4. If needed, review pre- and during-maintenance pumping procedure 5. Conduct pre-maintenance site photo documentation
<p>Biology</p>	<p>Reference facility-specific FMP</p>

Coir Mat Installation and Maintenance Methods

Flow Management	As needed: <ol style="list-style-type: none"> 1. Vactor or pump standing water from channel 2. Install temporary dry-weather flow-diversion berm(s) across channel (upstream and downstream of maintenance area) 3. Position vactor/pump to capture any incoming or contained flows 4. If pumping water through temporary hose(s) to location(s) downstream, allow for distributed discharge and infiltration
Downstream Sensitive Waters	Reference facility-specific FMP
BMP Installation	See Water Pollution Control Plan (WPCP)
Post-Maintenance Procedures	Conduct post-maintenance procedures as required by the WPCP including the following: <ol style="list-style-type: none"> 1. Demobilize equipment 2. Return temporary access/loading area(s) to pre-maintenance or habitat type 3. Remove temporary BMPs 4. Update maintenance record 5. Conduct post-maintenance site photo documentation
Other Notes	None

One Rock Dam

Installation and Maintenance Methods

Facility Group/Segment¹	As-needed for MWMP Facilities that require post-maintenance erosion control
Description & Purpose	Installation of One Rock Dam to dissipate incoming flows and reduce velocities to pre-maintenance levels. Methods are intended to be permanently integrate with the facility bed and/or banks. One Rock Dam reference: Zeedyk (2006 and 2014).
Installation Sites	Generally located immediately upstream or where erosive velocities (above pre-maintenance conditions) are expected
General Design Guidelines	<ul style="list-style-type: none"> • Velocity-reducing “dam” that is one-rock tall, several rows long, and extend the full width of the channel bed. The dam should not be taller than one third of the bankfull depth and rocks should be similar sized. In concept, flood flows will pack smaller-sized material in the gaps and gradually strengthen the structure. • Site preparation will include removal of vegetation and approximately 6" of soil within installation area. • Installation consists of placement of rock in tightly packed rows and possible compaction with equipment, if feasible.
Materials	Imported rock, salvaged rock from maintenance area, or soilcrete burlap bags with 10:1 soil:cement mix
Expected Lifespan	Approximately 5–10 years depending on sediment deposition
Equipment²	Bobcat/skid-steer, bulldozer/track-steer, Gradall/excavator, loader, backhoe, dump truck, trash pump, vactor, wheelbarrow, sweeper, fuel-powered hand tool

¹ Facility-specific FMPs provide details on existing plans or as-builts available for a segment or facility group and will show access, loading, staging and/or stockpiling areas.

² The equipment list is typical of various dissipator installation jobs, but not all equipment listed will be used depending on the type of installation and the facility's characteristics

One Rock Dam

Installation and Maintenance Methods

Installation Procedures	<p><u>One Rock Dam Installation (follow City engineering standards):</u></p> <ol style="list-style-type: none"> 1. With equipment (e.g., Bobcat/skid-steer, bulldozer/track-steer, Gradall/excavator) and/or hand tools (e.g., shovels), remove material (e.g., vegetation, debris, soil/sediment) and up to the minimum layer thickness per the specification within work area. Equipment/crew may work within channel or from an access area outside the channel, depending on facility characteristics. Reference facility-specific FMP for access areas. 2. Imported material (e.g., rocks) may be pumped, wheel-barrowed or transported by truck/loader, etc. to work area 3. Use hand tools or equipment to compact/settle rock to stable position 4. Place/transport material in a portable trash bin, wheel-barrow, or by equipment to loading/access area, as needed 5. Equipment loads material from access/loading area into dump truck to be transported to approved disposal site
Additional Maintenance Information	
Pre-Maintenance Meeting	<p>Prior to the start of any maintenance activity, a qualified specialist(s) shall conduct the following on site:</p> <ol style="list-style-type: none"> 1. Review sensitive biological, historical, and water quality resources; if present, flag/delineate 2. Conduct appropriate training 3. Review Best Management Practices (BMP) installation 4. If needed, review pre- and during-maintenance pumping procedure 5. Conduct pre-maintenance site photo documentation
Biology	Reference facility-specific FMP
Flow Management	<p>As needed:</p> <ol style="list-style-type: none"> 1. Vactor or pump standing water from channel 2. Install temporary dry-weather flow-diversion berm(s) across channel (upstream and downstream of maintenance area) 3. Position vactor/pump to capture any incoming or contained flows 4. If pumping water through temporary hose(s) to location(s) downstream, allow for distributed discharge and infiltration
Downstream Sensitive Waters	Reference facility-specific FMP
BMP Installation	See Water Pollution Control Plan (WPCP)

One Rock Dam

Installation and Maintenance Methods

Post-Maintenance Procedures	Conduct post-maintenance procedures as required by the WPCP including the following: <ol style="list-style-type: none">1. Demobilize equipment2. Return temporary access/loading area(s) to pre-maintenance or habitat type3. Remove temporary BMPs4. Update maintenance record5. Conduct post-maintenance site photo documentation
Other Notes	None

Riprap

Installation and Maintenance Methods

Facility Group/Segment¹	As-needed for MWMP Facilities that require post-maintenance erosion control or replacement/repair of riprap
Description & Purpose	Installation and repair of Riprap to dissipate incoming flows and reduce velocities to pre-maintenance levels. Methods are intended to be permanently integrate with the facility bed and/or banks. Riprap reference: City of San Diego Drainage Design Manual.
Installation Sites	Generally located where erosive velocities (above pre-maintenance conditions) are expected
General Design Guidelines	<ul style="list-style-type: none"> • Velocity-reducing dissipator that consist of a riprap/rock baffle, larger in scale than the one-rock dam and therefore able to withstand higher velocities/sheer stress • Site preparation will include removal of vegetation and approximately 1–8 feet of soil within installation area • Installation consists of placement of bedding and riprap piles and possibly compaction with equipment, if feasible
Materials	Angular rocks with minimum specific gravity of 2.65 is preferred, filter blanket material (granular material or non-woven geotextile filter fabric)
Expected Lifespan	Approximately 50+ years
Equipment²	Bobcat/skid-steer, bulldozer/track-steer, Gradall/excavator, loader, backhoe, dump truck, trash pump, vactor, wheelbarrow, sweeper, fuel-powered hand tool

¹ Facility-specific FMPs provide details on existing plans or as-builts available for a segment or facility group and will show access, loading, staging and/or stockpiling areas.

² The equipment list is typical of various dissipator installation jobs, but not all equipment listed will be used depending on the type of installation and the facility's characteristics

Riprap

Installation and Maintenance Methods

<p>Installation Procedures</p>	<p><u>Riprap Installation and City engineering standards):</u></p> <ol style="list-style-type: none"> 1. Engineering/crew determines if Placement Method A or B (City of San Diego Drainage Design Manual) will be used (based on riprap sizing) and per maintenance plans 2. With equipment (e.g., Bobcat/skid-steer, bulldozer/track-steer, Gradall/excavator) and/or hand tools (e.g., shovels), remove material (e.g., vegetation, debris, soil/sediment) and excavate to the minimum layer thickness per the specification within work area. Equipment/crew may work within channel or from an access area outside the channel, depending on facility characteristics. Reference facility-specific FMP for access areas. 3. Install bedding layer per the specifications including filter fabric 4. Imported material (e.g., riprap, rock) may be pumped, wheel-barrowed or transported by truck/loader, etc. to work area 5. Equipment places riprap per Placement Method A or B 6. Equipment moves rock in the work area to maintain appropriate grade 7. Use hand tools or equipment to compact/settle rock to stable position 8. Place/transport material in a portable trash bin, wheel-barrow, or by equipment to loading/access area, as needed 9. Equipment loads material from access/loading area into dump truck to be transported to approved disposal site
<p>Additional Maintenance Information</p>	
<p>Pre-Maintenance Meeting</p>	<p>Prior to the start of any maintenance activity, a qualified specialist(s) shall conduct the following on site:</p> <ol style="list-style-type: none"> 1. Review sensitive biological, historical, and water quality resources; if present, flag/delineate 2. Conduct appropriate training 3. Review Best Management Practices (BMP) installation 4. If needed, review pre- and during-maintenance pumping procedure 5. Conduct pre-maintenance site photo documentation
<p>Biology</p>	<p>Reference facility-specific FMP</p>
<p>Flow Management</p>	<p>As needed:</p> <ol style="list-style-type: none"> 1. Vactor or pump standing water from channel 2. Install temporary dry-weather flow-diversion berm(s) across channel (upstream and downstream of maintenance area) 3. Position vactor/pump to capture any incoming or contained flows 4. If pumping water through temporary hose(s) to location(s) downstream, allow for distributed discharge and infiltration
<p>Downstream Sensitive Waters</p>	<p>Reference facility-specific FMP</p>

Riprap

Installation and Maintenance Methods

BMP Installation	See Water Pollution Control Plan (WPCP)
Post-Maintenance Procedures	Conduct post-maintenance procedures as required by the WPCP including the following: <ol style="list-style-type: none">1. Demobilize equipment2. Return temporary access/loading area(s) to pre-maintenance or habitat type3. Remove temporary BMPs4. Update maintenance record5. Conduct post-maintenance site photo documentation
Other Notes	None

Turf Reinforcement Mat Maintenance Methods

Facility Group/Segment¹	As-needed for MWMP Facilities that require post-maintenance erosion control
Description & Purpose	Installation of Turf Reinforcement Mat (TRM) to stabilize bed and banks as a result of increased post-maintenance velocities. TRM are composite mats of non-degradable synthetic material that are incorporated into layered heavy-duty netting to create a flexible three-dimensional structure that provides new vegetation stability in adverse conditions.
Installation Sites	Generally located where erosive velocities (above pre-maintenance conditions) are expected
General Design Guidelines	<ul style="list-style-type: none"> • TRM is intended to be permanent • TRMs are frequently used to protect bed and banks from erosion while allowing vegetation growth • Seeding is at the direction of the landscape architect • Manufacturer's installation instructions and specifications should be followed. The maintenance procedures section below describes the general installation process.
Materials	TRM, pins/staples, or biodegradable stakes
Expected Lifespan	Less than 50 years
Equipment²	Bobcat/skid-steer, bulldozer/track-steer, Gradall/excavator, loader, backhoe, dump truck, trash pump, vactor, wheelbarrow, sweeper, fuel-powered hand tools

¹ Facility-specific FMPs provide details on existing plans or as-builts available for a segment or facility group and will show access, loading, staging and/or stockpiling areas.

² The equipment list is typical of various channel stabilization jobs, but not all equipment listed will be used depending on the type of installation and the facility's characteristics

Turf Reinforcement Mat Maintenance Methods

Installation Procedures	<p><u>TRM Installation (follow manufacturer's specification for installation and City engineering standards):</u></p> <ol style="list-style-type: none"> 1. With equipment (e.g., Bobcat/skid-steer, bulldozer/track-steer, Gradall/excavator) and/or hand tools (e.g., shovels), remove material (e.g., vegetation, debris, soil/sediment) and excavate to the minimum layer thickness per the specification within work area. Equipment/crew may work within channel or from an access area outside the channel, depending on facility characteristics. Reference facility-specific FMP for access areas. 2. The soil should be prepped and seeding should be done prior to installation of the matting 3. Dig a small trench at the top of slope and terminal end to secure the matting 4. Install the matting by overlapping the mats a minimum of 4 to 6 inches and secure the mats with staples or stakes 5. Secure both ends of the mat with stakes/staples/hooks and fill in the trenches 6. Seed the matting, if applicable 7. Place/transport material in a portable trash bin, wheel-barrow, or by equipment to loading/access area, as needed 8. Equipment loads material from access/loading area into dump truck to be transported to approved disposal site
Additional Maintenance Information	
Pre-Maintenance Meeting	<p>Prior to the start of any maintenance activity, a qualified specialist(s) shall conduct the following on site:</p> <ol style="list-style-type: none"> 1. Review sensitive biological, historical, and water quality resources; if present, flag/delineate 2. Conduct appropriate training 3. Review Best Management Practices (BMP) installation 4. If needed, review pre- and during-maintenance pumping procedure 5. Conduct pre-maintenance site photo documentation
Biology	Reference facility-specific FMP
Flow Management	<p>As needed:</p> <ol style="list-style-type: none"> 1. Vector or pump standing water from channel 2. Install temporary dry-weather flow-diversion berm(s) across channel (upstream and downstream of maintenance area) 3. Position vector/pump to capture any incoming or contained flows 4. If pumping water through temporary hose(s) to location(s) downstream, allow for distributed discharge and infiltration
Downstream Sensitive Waters	Reference facility-specific FMP
BMP Installation	See Water Pollution Control Plan (WPCP)

Turf Reinforcement Mat Maintenance Methods

Post-Maintenance Procedures	Conduct post-maintenance procedures as required by the WPCP including the following: <ol style="list-style-type: none">1. Demobilize equipment2. Return temporary access/loading area(s) to pre-maintenance or habitat type3. Remove temporary BMPs4. Update maintenance record5. Conduct post-maintenance site photo documentation
Other Notes	None

Wooden Check Dam

Installation and Maintenance Methods

Facility Group/Segment¹	As-needed for MWMP Facilities that require post-maintenance erosion control
Description & Purpose	Installation of wooden check dam to dissipate incoming flows and reduce velocities to pre-maintenance levels. Methods are intended to be temporary/semi-permanent (wooden check dam would degrade/integrate with stream bed/vegetation). Wooden check dam references: FAO 1986.
Installation Sites	Generally located immediately upstream of stream segments where erosive velocities (above pre-maintenance conditions) are expected
General Design Guidelines	<ul style="list-style-type: none"> • Wooden check dams are made of posts and wood that spans the ditch as a temporary structure • The check dam is constructed straight across the channel • The check dams should be no taller than 2 feet
Materials	Wooden posts, salvaged/imported trees, or planks/heavy boards
Expected Lifespan	Approximately 3 years
Equipment²	Bobcat/skid-steer, bulldozer/track-steer, Gradall/excavator, loader, backhoe, dump truck, trash pump, vactor, wheelbarrow, sweeper, fuel-powered hand tools
Installation Procedures	<p><u>Wooden Check Dam Installation (follow City engineering standards):</u></p> <ol style="list-style-type: none"> 1. With equipment (e.g., Bobcat/skid-steer, bulldozer/track-steer, Gradall/excavator) and/or hand tools (e.g., shovels), remove material (e.g., vegetation, debris, soil/sediment) within work area. Equipment/crew may work within channel or from an access area outside the channel, depending on facility characteristics. Reference facility-specific FMP for access areas. 2. Install posts 1' to a maximum of 4' apart based on maintenance design plans 3. Set wooden planks between two rows of posts. Use wire to hold the top of the wooden check dam in place. 4. Place/transport material in a portable trash bin, wheel-barrow, or by equipment to loading/access area, as needed 5. Equipment loads material from access/loading area into dump truck to be transported to approved disposal site

¹ Facility-specific FMPs provide details on existing plans or as-builts available for a segment or facility group and will show access, loading, staging and/or stockpiling areas.

² The equipment list is typical of various dissipator installation jobs, but not all equipment listed will be used depending on the type of installation and the facility's characteristics

Wooden Check Dam

Installation and Maintenance Methods

Additional Maintenance Information	
Pre-Maintenance Meeting	<p>Prior to the start of any maintenance activity, a qualified specialist(s) shall conduct the following on site:</p> <ol style="list-style-type: none"> 1. Review sensitive biological, historical, and water quality resources; if present, flag/delineate 2. Conduct appropriate training 3. Review Best Management Practices (BMP) installation 4. If needed, review pre- and during-maintenance pumping procedure 5. Conduct pre-maintenance site photo documentation
Biology	Reference facility-specific FMP
Flow Management	<p>As needed:</p> <ol style="list-style-type: none"> 1. Vector or pump standing water from channel 2. Install temporary dry-weather flow-diversion berm(s) across channel (upstream and downstream of maintenance area) 3. Position vector/pump to capture any incoming or contained flows 4. If pumping water through temporary hose(s) to location(s) downstream, allow for distributed discharge and infiltration
Downstream Sensitive Waters	Reference facility-specific FMP
BMP Installation	See Water Pollution Control Plan (WPCP)
Post-Maintenance Procedures	<p>Conduct post-maintenance procedures as required by the WPCP including the following:</p> <ol style="list-style-type: none"> 1. Demobilize equipment 2. Return temporary access/loading area(s) to pre-maintenance or habitat type 3. Remove temporary BMPs 4. Update maintenance record 5. Conduct post-maintenance site photo documentation
Other Notes	None

APPENDIX A-5

***Additional Facilities Evaluated (Technical
Summaries Only, No FMPs Proposed)***

Technical Summary

Los Peñasquitos Canyon Creek - Sorrento Facility Group

Segment Name (Facility number):
Sorrento Valley 1 (2-01-000)



Los Peñasquitos Canyon Creek - Sorrento Facility Group

Technical Summary

Sorrento Valley Segment 1 Detail

Facility Type	Earthen channel
Substrate Detail	Earthen bottom and banks
Location Within Watershed	Lower reach of Los Peñasquitos Canyon Creek, upstream of the Los Peñasquitos Lagoon
Tributaries (listed from downstream to upstream)	Soledad Canyon Creek, Soledad Canyon Creek Unnamed Tributary, Los Peñasquitos Canyon Creek Unnamed Tributary, Carroll Canyon Creek
Facility Length	Approximately 2,347 feet
Top-of-Bank Width	Approximately 23-76 feet
Bottom Facility Width	Approximately 8-26 feet
Facility Depth	Approximately 2-12 feet
Adjacent Land Use	Industrial, Office, Open Space, Transportation
As-Built Drawing Number	None
Coastal Zone	CST-APP, N-APP-1



Figure 1: October 2010, looking upstream at the vegetation along the banks



Figure 2: Vicinity Map of Sorrento Valley Segment 1

Los Peñasquitos Canyon Creek - Sorrento Facility Group

Technical Summary

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses, and notes to illustrate special habitat and wildlife.

Facility Vegetation	<ul style="list-style-type: none"> • Disturbed wetland (Arundo-dominated) • Natural flood channel • Riparian forest (southern willow forest)
Adjacent Vegetation	<ul style="list-style-type: none"> • Developed land • Disturbed land • Natural flood channel • Ornamental plantings
Habitat and Wildlife	The channel has a high potential to support sensitive species, such as least Bell's vireo, Ridgeway's rail, and southern willow flycatcher, as well as other migratory birds due to the presence of extensive suitable habitat (e.g. riparian forest [southern willow forest]) both within and adjacent to the facility
MHPA	The channel is located almost entirely within the Multi Habitat Planning Area (MHPA) with direct connectivity to additional MHPA sections upstream and downstream within the Los Peñasquitos Creek and Lagoon
Mitigation Within Facility	None

Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources	
Resource Identified in APE	None
Resource Identified Adjacent to APE	None
Resource Type	N/A

Historical Resources	
Resource Identified in APE	Channel; c. 1953–1964 earthen channel
Potential Historical Resources	Yes
Constraint Identified	

Los Peñasquitos Canyon Creek - Sorrento Facility Group

Technical Summary

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-1a
EP-BIO-6	MM-BIO-2
Health and Safety/Hazards (HAZ)	Historic, Archaeological, and Tribal Cultural Resources (HR and CR)
EP-HAZ-3	MM-CR-1
Land Use (LU)	MM-CR-2
EP-LU-1	MM-CR-3
Solid Waste (SW)	MM-CR-4
EP-SW-2	Noise (NOI)
EP-SW-3	MM-NOI-1
EP-SW-4	
EP-SW-5	
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

Technical Summary

Soledad Canyon Creek - Sorrento Facility Group

Segment Names (Facility numbers):

Roselle 1 (2-03-000) (See Appendix
A-1)

Roselle 2 (2-03-002) (See Appendix
A-1)

SorValRd 1 (2-03-004)

SorValRd 2 (2-03-006)

Soledad Canyon Creek - Sorrento Facility Group

Technical Summary

SorValRd Segment 1 Detail

Facility Type	Earthen channel
Substrate Detail	Earthen bottom and banks
Location Within Watershed	Lower reach of Soledad Canyon Creek, immediately upstream of Soledad Canyon Creek (Segment 2)
Tributaries (listed from downstream to upstream)	No named tributaries
Facility Length	Approximately 5,283 feet
Top-of-Bank Width	Approximately 34-109 feet
Bottom Facility Width	Approximately 10-40 feet
Facility Depth	Approximately 6-15 feet
Adjacent Land Use	Construction, Industrial, Office, Open Space, Transportation, Vacant
As-Built Drawing Number	None
Coastal Zone	CST-APP, N-APP-1



Figure 1: July 2017, looking downstream at channel bottom near the upstream side of railroad bridge



Figure 2: Vicinity Map of SorValRd Segment 1

Soledad Canyon Creek - Sorrento Facility Group

Technical Summary

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses, and notes to illustrate special habitat and wildlife.

- | | |
|----------------------------|---|
| Facility Vegetation | <ul style="list-style-type: none"> • Disturbed wetland (Arundo-dominated) • Natural flood channel • Riparian forest (southern willow forest) |
|----------------------------|---|

- | | |
|----------------------------|---|
| Adjacent Vegetation | <ul style="list-style-type: none"> • Developed land • Disturbed land • Disturbed wetland (Arundo-dominated) • Eucalyptus woodland • Non-native grassland • Ornamental plantings • Riparian forest (southern riparian forest) |
|----------------------------|---|

Habitat and Wildlife	The vegetation contained within the facility provides potential nesting and/or foraging habitat for raptors, migratory bird species, and sensitive bird species (e.g., Least Bell's vireo and southern willow flycatcher)
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MHPA	Portions of the channel are located within the Multi Habitat Planning Area (MHPA)
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Mitigation Within Facility	None
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Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources

Resource Identified in APE	P-37-004609
Resource Identified Adjacent to APE	None
Resource Type	Prehistoric village

Historical Resources

Resource Identified in APE	None
Potential Historical Resources	None
Constraint Identified	

Soledad Canyon Creek - Sorrento Facility Group

Technical Summary

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-1a
EP-BIO-6	MM-BIO-2
Health and Safety/Hazards (HAZ)	Historic, Archaeological, and Tribal Cultural Resources (HR and CR)
EP-HAZ-3	MM-CR-1
Land Use (LU)	MM-CR-2
EP-LU-1	MM-CR-3
Paleontological Resources (PAL)	MM-CR-4
EP-PAL-1	Noise (NOI)
Solid Waste (SW)	MM-NOI-1
EP-SW-2	
EP-SW-3	
EP-SW-4	
EP-SW-5	
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

Soledad Canyon Creek - Sorrento Facility Group

Technical Summary

SorValRd Segment 2 Detail

Facility Type	Earthen channel
Substrate Detail	Earthen bottom and banks
Location Within Watershed	Lower reach of Soledad Canyon Creek, immediately upstream of Soledad Canyon Creek (SorVal Rd Segment 1)
Tributaries (listed from downstream to upstream)	No named tributaries
Facility Length	Approximately 1,473 feet
Top-of-Bank Width	Approximately 55–300 feet
Bottom Facility Width	Approximately 47–170 feet
Facility Depth	Approximately 6–9 feet
Adjacent Land Use	Commercial, Industrial, Office, Open Space, Public Facilities and Utilities, Transportation, Vacant
As-Built Drawing Number	10255-D
Coastal Zone	No



Figure 1: May 2019, looking downstream at vegetation density



Figure 2: Vicinity Map of SorValRd Segment 2

Soledad Canyon Creek - Sorrento Facility Group

Technical Summary

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses, and notes to illustrate special habitat and wildlife.

Facility Vegetation	<ul style="list-style-type: none"> Natural flood channel Riparian forest (southern willow forest)
Adjacent Vegetation	<ul style="list-style-type: none"> Developed land Disturbed land Eucalyptus woodland Non-native grassland Ornamental plantings Riparian forest (southern riparian forest)
Habitat and Wildlife	The vegetation contained within and adjacent the facility provides potential nesting and/or foraging habitat for raptors, migratory bird species, and sensitive bird species (e.g., Least Bell's vireo and southern willow flycatcher)
MHPA	The facility is adjacent to the Multi Habitat Planning Area (MHPA). The MHPA is located 50 feet directly downstream the channel's north western boundary.
Mitigation Within Facility	None

Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources	
Resource Identified in APE	None
Resource Identified Adjacent to APE	None
Resource Type	N/A

Historical Resources	
Resource Identified in APE	None
Potential Historical Resources	None
Constraint Identified	

Soledad Canyon Creek - Sorrento Facility Group

Technical Summary

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-1a
EP-BIO-6	MM-BIO-2
Health and Safety/Hazards (HAZ)	Historic, Archaeological, and Tribal Cultural Resources (HR and CR)
EP-HAZ-3	MM-CR-1
Land Use (LU)	MM-CR-2
EP-LU-1	MM-CR-3
Solid Waste (SW)	MM-CR-4
EP-SW-2	Noise (NOI)
EP-SW-3	MM-NOI-1
EP-SW-4	
EP-SW-5	
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

Technical Summary

Tecolote Creek - Morena Facility Group

Segment Name (Facility number):
Morena 1 (3-04-101)

Tecolote Creek - Morena Facility Group

Technical Summary

Morena Segment 1 Detail

Facility Type	Earthen ditch
Substrate Detail	Earthen bottom and banks
Location Within Watershed	Lower reach of Tecolote Creek unnamed tributary, immediately upstream of Tecolote Creek Channel
Tributaries (listed from downstream to upstream)	No named tributaries
Facility Length	Approximately 200 feet
Top-of-Bank Width	Approximately 15-25 feet
Bottom Facility Width	Approximately 2-5 feet
Facility Depth	Approximately 4-5 feet
Adjacent Land Use	Commercial, Industrial, Multi-Family Residential, Public Facilities and Utilities, Single-Family Residential, Transportation, Vacant
As-Built Drawing Number	None
Coastal Zone	No



Figure 1: May 2017, looking downstream, representative of thick vegetation in the channel



Figure 2: Vicinity Map of Morena Segment 1

Tecolote Creek - Morena Facility Group

Technical Summary

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses, and notes to illustrate special habitat and wildlife.

Facility Vegetation	<ul style="list-style-type: none"> • Disturbed wetland • Riparian forest
Adjacent Vegetation	<ul style="list-style-type: none"> • Disturbed land • Ornamental plantings
Habitat and Wildlife	There are no significant biological resources suitable for sensitive species use within or adjacent to the facility
MHPA	The facility is not within or adjacent to the Multi Habitat Planning Area (MHPA)
Mitigation Within Facility	None

Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources	
Resource Identified in APE	None
Resource Identified Adjacent to APE	None
Resource Type	N/A

Historical Resources	
Resource Identified in APE	Channel; c. 1953–1963 earthen channel
Potential Historical Resources	Yes
Constraint Identified	

Tecolote Creek - Morena Facility Group

Technical Summary

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-1a
EP-BIO-6	MM-BIO-2
Health and Safety/Hazards (HAZ)	Historic, Archaeological, and Tribal Cultural Resources (HR and CR)
EP-HAZ-3	MM-HR-1
Paleontological Resources (PAL)	MM-HR-2
EP-PAL-1	Noise (NOI)
Solid Waste (SW)	MM-NOI-1
EP-SW-2	
EP-SW-3	
EP-SW-4	
EP-SW-5	
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

Technical Summary

Murphy Canyon Creek - Stadium Facility Group

Segment Names (Facility numbers):

Stadium 1 (4-04-000) (See
Appendix A-1)

Stadium 2 (4-04-002) (See
Appendix A-1)

Murphy Canyon 1 (4-04-006) (See
Appendix A-1)

Murphy Canyon 2 (4-04-008)

Murphy Canyon Creek - Stadium Facility Group

Technical Summary

Murphy Canyon Segment 2 Detail

Facility Type	Earthen channel
Substrate Detail	Earthen bottom and banks
Location Within Watershed	Lower reach of Murphy Canyon Creek, immediately upstream of Murphy Canyon Creek (Murphy Canyon Segment 1)
Tributaries (listed from downstream to upstream)	No named tributaries
Facility Length	Approximately 1,563 feet
Top-of-Bank Width	Approximately 60–125 feet
Bottom Facility Width	Approximately 25–60 feet
Facility Depth	Approximately 8–17 feet
Adjacent Land Use	Commercial, Open Space, Public Facilities and Utilities, Transportation, Vacant
As-Built Drawing Number	None
Coastal Zone	No



Figure 1: March 2013, looking upstream



Figure 2: Vicinity Map of Murphy Canyon Segment 2

Murphy Canyon Creek - Stadium Facility Group

Technical Summary

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses, and notes to illustrate special habitat and wildlife.

Facility Vegetation	<ul style="list-style-type: none"> • Eucalyptus woodland • Riparian scrub (southern willow scrub)
Adjacent Vegetation	<ul style="list-style-type: none"> • Coastal sage scrub • Developed concrete-lined channel • Disturbed coastal sage scrub • Disturbed land • Eucalyptus woodland
Habitat and Wildlife	The channel has a high potential to support sensitive species (e.g., least Bell's vireo), raptors, and other migratory birds due to the presence of extensive sensitive habitat (e.g., riparian scrub [southern willow scrub]) within and adjacent to the facility
MHPA	The facility is not within or adjacent to the Multi Habitat Planning Area (MHPA). The nearest MHPA boundary is located approximately 620 feet to the east of the channel.
Mitigation Within Facility	None

Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources

Resource Identified in APE	None
Resource Identified Adjacent to APE	None
Resource Type	N/A

Historical Resources

Resource Identified in APE	Channel; c. 1966–1972 earthen channel
Potential Historical Resources	Yes
Constraint Identified	

Murphy Canyon Creek - Stadium Facility Group

Technical Summary

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-1a
EP-BIO-6	MM-BIO-2
Health and Safety/Hazards (HAZ)	Historic, Archaeological, and Tribal Cultural Resources (HR and CR)
EP-HAZ-3	MM-HR-1
Paleontological Resources (PAL)	MM-HR-2
EP-PAL-1	Noise (NOI)
Solid Waste (SW)	MM-NOI-1
EP-SW-2	
EP-SW-3	
EP-SW-4	
EP-SW-5	
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

Technical Summary

Norfolk Canyon Creek - Fairmount Facility Group

Segment Names (Facility numbers):

Fairmount 1 (4-08-008) (See Appendix A-1)

Fairmount 2 (4-08-011) (See Appendix A-1)

Fairmount 3 (4-08-014) (See Appendix A-1)

Fairmount 4 (4-08-017) (See Appendix A-1)

Baja 1 (4-08-105) (See Appendix A-1)

Aldine 1 (4-08-150)

Norfolk Canyon Creek - Fairmount Facility Group

Technical Summary

Aldine Segment 1 Detail

Facility Type	Earthen ditch
Substrate Detail	Earthen bottom and banks
Location Within Watershed	Upper reach of Norfolk Canyon Creek, immediately upstream of Norfolk Canyon Creek, South (Fairmount Segment 3)
Tributaries (listed from downstream to upstream)	No named tributaries
Facility Length	Approximately 1,240 feet
Top-of-Bank Width	Approximately 35 feet
Bottom Facility Width	Approximately 7 feet
Facility Depth	Approximately 7 feet
Adjacent Land Use	Open Space, Public Facilities and Utilities, Single-Family Residential, Transportation
As-Built Drawing Number	None
Coastal Zone	No



Figure 1: April 2017, looking downstream at vegetation, erosion in facility

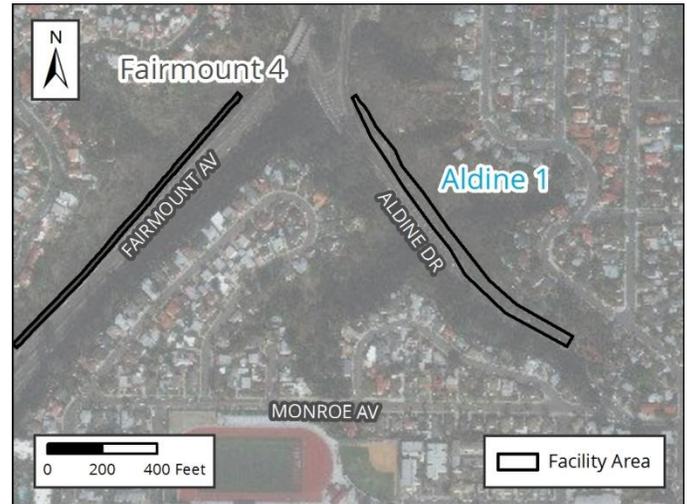


Figure 2: Vicinity Map of Aldine Segment 1

Norfolk Canyon Creek - Fairmount Facility Group

Technical Summary

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses, and notes to illustrate special habitat and wildlife.

Facility Vegetation	<ul style="list-style-type: none"> • Disturbed wetland (palm-dominated) • Natural flood channel
Adjacent Vegetation	<ul style="list-style-type: none"> • Chaparral • Coastal sage scrub • Developed land • Disturbed land • Disturbed wetland (palm-dominated) • Eucalyptus woodland
Habitat and Wildlife	There is limited suitable habitat contained within the facility for wildlife. However, raptors could use the eucalyptus woodland present adjacent to the facility for nesting/roosting. Other sensitive bird species (e.g., coastal California gnatcatcher) could occur in sage scrub habitat adjacent to the ditch.
MHPA	The eastern side of the ditch is intersected by the Multi Habitat Planning Area (MHPA) near the center of the facility
Mitigation Within Facility	None

Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources	
Resource Identified in APE	None
Resource Identified Adjacent to APE	None
Resource Type	N/A

Historical Resources	
Resource Identified in APE	Channel; pre-1953 earthen channel
Potential Historical Resources	Yes
Constraint Identified	

Norfolk Canyon Creek - Fairmount Facility Group

Technical Summary

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-1a
EP-BIO-6	MM-BIO-2
Health and Safety/Hazards (HAZ)	Historic, Archaeological, and Tribal Cultural Resources (HR and CR)
EP-HAZ-3	MM-HR-1
Land Use (LU)	MM-HR-2
EP-LU-1	Noise (NOI)
Paleontological Resources (PAL)	MM-NOI-1
EP-PAL-1	
Solid Waste (SW)	
EP-SW-2	
EP-SW-3	
EP-SW-4	
EP-SW-5	
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

Technical Summary

Auburn Creek - Home Facility Group

Segment Names (Facility numbers):

Home 1 (5-04-220) (See Appendix A-1)

Home 2 (5-04-224) (See Appendix A-1)

Home 3 (5-04-227) (See Appendix A-1)

Home 4 (5-04-229)

Home 5 (5-04-231) (See Appendix A-1)

Auburn Creek - Home Facility Group

Technical Summary

Home Segment 4 Detail

Facility Type	Earthen and concrete channel
Substrate Detail	Stations 2162-2916: Earthen bottom, earthen left bank, and concrete right bank
Location Within Watershed	Lower reach of Auburn Creek, immediately upstream of Auburn Creek (Home, Segment 3)
Tributaries (listed from downstream to upstream)	Auburn Creek
Facility Length	Approximately 754 feet
Top-of-Bank Width	Approximately 30 feet
Bottom Facility Width	Approximately 12 feet
Facility Depth	Approximately 6 feet
Adjacent Land Use	Commercial, Industrial, Multi-Family Residential, Open Space, Single-Family Residential, Transportation, Vacant
As-Built Drawing Number	12728-2-L
Coastal Zone	No



Figure 1: March 2016, looking upstream at the double 6-foot wide by 6-foot tall RCB culvert. Note the standing water and erosion at culvert outlet.



Figure 2: Vicinity Map of Home Segment 4

Auburn Creek - Home Facility Group

Technical Summary

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses, and notes to illustrate special habitat and wildlife.

Facility Vegetation	<ul style="list-style-type: none"> • Developed concrete-lined channel • Disturbed wetland (Arundo-dominated) • Ornamental plantings
Adjacent Vegetation	<ul style="list-style-type: none"> • Coastal sage scrub • Developed concrete-lined channel • Developed land • Disturbed wetland (Arundo-dominated) • Ornamental plantings
Habitat and Wildlife	The channel area itself does not contain suitable vegetation for sensitive wildlife; however, suitable habitat for sensitive bird species, such as coastal California gnatcatcher, is present in the areas surrounding the facility
MHPA	The facility is adjacent to the Multi Habitat Planning Area (MHPA). The nearest MHPA boundary is located less than 5 feet directly south of the facility.
Mitigation Within Facility	None

Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources	
Resource Identified in APE	None
Resource Identified Adjacent to APE	None
Resource Type	N/A

Historical Resources	
Resource Identified in APE	Channel; 1956 earthen channel
Potential Historical Resources	Yes
Constraint Identified	

Auburn Creek - Home Facility Group Technical Summary

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-1a
EP-BIO-6	MM-BIO-2
Geologic Resources (GEO)	Historic, Archaeological, and Tribal Cultural Resources (HR and CR)
EP-GEO-1	MM-HR-1
Health and Safety/Hazards (HAZ)	MM-HR-2
DELETE	Noise (NOI)
EP-HAZ-3	MM-NOI-1
Land Use (LU)	
EP-LU-1	
Paleontological Resources (PAL)	
DELETE	
Solid Waste (SW)	
EP-SW-2	
EP-SW-3	
EP-SW-4	
EP-SW-5	
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

Technical Summary

Auburn Creek - Oakcrest Facility Group

Segment Name (Facility number):
Oakcrest 1 (5-04-245)

Auburn Creek - Oakcrest Facility Group

Technical Summary

Oakcrest Segment 1 Detail

Facility Type	Earthen channel
Substrate Detail	Earthen bottom and banks
Location Within Watershed	Upper reach of Auburn Creek (unnamed tributary), upstream of Auburn Creek (unnamed tributary, Wightman, Segment 2)
Tributaries (listed from downstream to upstream)	No named tributaries
Facility Length	Approximately 1,121 feet
Top-of-Bank Width	Approximately 24–51 feet
Bottom Facility Width	Approximately 6.5–14 feet
Facility Depth	Approximately 5.6–6.5 feet
Adjacent Land Use	Multi-Family Residential, Public Facilities and Utilities, Single-Family Residential, Transportation, Vacant
As-Built Drawing Number	None
Coastal Zone	No



Figure 1: August 2017, looking upstream at RCP storm drain system outlet

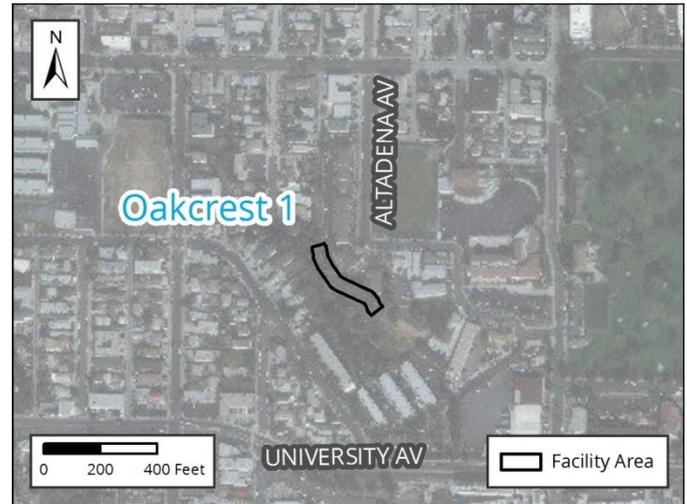


Figure 2: Vicinity Map of Oakcrest Segment 1

Auburn Creek - Oakcrest Facility Group

Technical Summary

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses, and notes to illustrate special habitat and wildlife.

- | | |
|----------------------------|---|
| Facility Vegetation | <ul style="list-style-type: none"> • Developed concrete-lined channel • Natural flood channel • Ornamental plantings • Riparian forest (southern willow forest) |
|----------------------------|---|

- | | |
|----------------------------|---|
| Adjacent Vegetation | <ul style="list-style-type: none"> • Developed land • Disturbed land • Eucalyptus woodland • Riparian forest (southern willow forest) • Ornamental plantings |
|----------------------------|---|

Habitat and Wildlife	Although this channel does contain some suitable vegetation for sensitive wildlife species (e.g., least Bell's vireo), the channel extents and area of vegetation present are limited such that it is unlikely for wildlife to use the channel for nesting or foraging
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MHPA	The facility is not within or adjacent to the Multi Habitat Planning Area (MHPA)
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Mitigation Within Facility	Identified as potential compensatory mitigation areas. A compensatory mitigation plan has not yet been prepared.
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Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources

Resource Identified in APE	None
Resource Identified Adjacent to APE	None
Resource Type	N/A

Historical Resources

Resource Identified in APE	Channel; pre-1972 earthen channel
Potential Historical Resources	Yes
Constraint Identified	

Auburn Creek - Oakcrest Facility Group

Technical Summary

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-1a
EP-BIO-6	MM-BIO-2
Health and Safety/Hazards (HAZ)	Historic, Archaeological, and Tribal Cultural Resources (HR and CR)
EP-HAZ-3	MM-HR-1
Paleontological Resources (PAL)	MM-HR-2
EP-PAL-1	Noise (NOI)
Solid Waste (SW)	MM-NOI-1
EP-SW-2	
EP-SW-3	
EP-SW-4	
EP-SW-5	
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

Technical Summary

South Chollas Creek - Euclid Facility Group

Segment Names (Facility numbers):

Euclid 1 (5-05-019)

Euclid 2 (5-05-021) (See Appendix
A-1)

South Chollas Creek - Euclid Facility Group

Technical Summary

Euclid Segment 1 Detail

Facility Type	Earthen channel
Substrate Detail	Earthen bottom and banks
Location Within Watershed	Middle reach of South Chollas Creek, upstream of South Chollas Creek (Ocean View Segment 2)
Tributaries (listed from downstream to upstream)	South Chollas Creek
Facility Length	Approximately 904 feet
Top-of-Bank Width	Approximately 42-93 feet
Bottom Facility Width	Approximately 8-29 feet
Facility Depth	Approximately 7-27 feet
Adjacent Land Use	Commercial, Industrial, Public Facilities and Utilities, Single-Family Residential, Transportation, Vacant
As-Built Drawing Number	None
Coastal Zone	No



Figure 1: April 2017, representative of earthen with cobble portion of channel

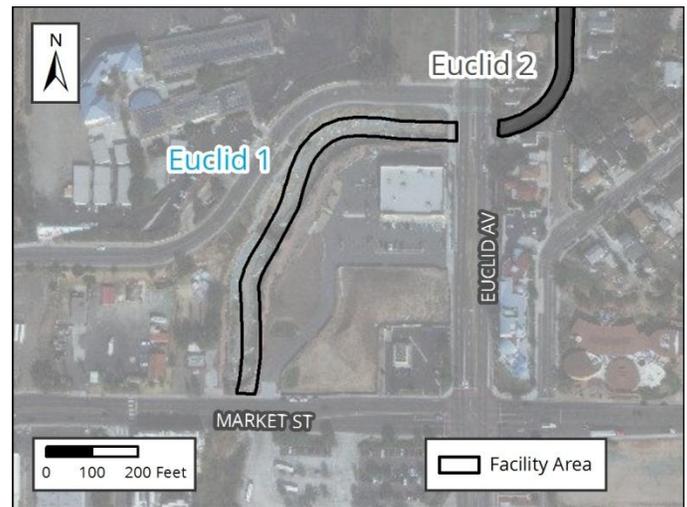


Figure 2: Vicinity Map of Euclid Segment 1

South Chollas Creek - Euclid Facility Group

Technical Summary

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses, and notes to illustrate special habitat and wildlife.

Facility Vegetation	<ul style="list-style-type: none"> Natural flood channel
Adjacent Vegetation	<ul style="list-style-type: none"> Developed land Disturbed land Disturbed wetland Eucalyptus woodland Ornamental plantings Riparian forest (coast live oak) Riparian forest (southern willow forest)
Habitat and Wildlife	There are no significant biological resources suitable for sensitive species use within the facility; however, sensitive species (e.g., least Bell's vireo) or other migratory species may use the riparian forest (southern willow forest) habitat downstream of the channel
MHPA	The facility is not within or adjacent to the Multi Habitat Planning Area (MHPA). The nearest MHPA boundary is located more than 1,000 feet east of the channel.
Mitigation Within Facility	None

Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources	
Resource Identified in APE	None
Resource Identified Adjacent to APE	None
Resource Type	N/A

Historical Resources	
Resource Identified in APE	Channel; c. 1964 earthen channel
Potential Historical Resources	Yes
Constraint Identified	

South Chollas Creek - Euclid Facility Group

Technical Summary

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-1a
EP-BIO-6	MM-BIO-2
Health and Safety/Hazards (HAZ)	Historic, Archaeological, and Tribal Cultural Resources (HR and CR)
EP-HAZ-3	MM-HR-1
Paleontological Resources (PAL)	MM-HR-2
EP-PAL-1	Noise (NOI)
Solid Waste (SW)	MM-NOI-1
EP-SW-2	
EP-SW-3	
EP-SW-4	
EP-SW-5	
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

Technical Summary

South Chollas Creek Encanto Branch - Imperial Facility Group

Segment Names (Facility numbers):

Imperial 1 (5-05-304)

Imperial 2 (5-05-306) (See
Appendix A-1)

South Chollas Creek Encanto Branch - Imperial Facility Group

Technical Summary

Imperial Segment 1 Detail

Facility Type	Earthen channel
Substrate Detail	Earthen bottom and banks
Location Within Watershed	Lower reach of the South Chollas Creek Encanto Branch, upstream of South Chollas Creek
Tributaries (listed from downstream to upstream)	South Chollas Creek Encanto Branch
Facility Length	Approximately 2,638 feet
Top-of-Bank Width	Approximately 95 feet
Bottom Facility Width	Approximately 22 feet
Facility Depth	Approximately 14 feet
Adjacent Land Use	Commercial, Industrial, Multi-Family Residential, Open Space, Other Residential, Public Facilities and Utilities, Single-Family Residential, Transportation, Vacant
As-Built Drawing Number	12898-D
Coastal Zone	No



Figure 1: April 2017, looking downstream of Orange Line bridge at vegetation



Figure 2: Vicinity Map of Imperial Segment 1

South Chollas Creek Encanto Branch - Imperial Facility Group

Technical Summary

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses, and notes to illustrate special habitat and wildlife.

Facility Vegetation	<ul style="list-style-type: none"> • Disturbed riparian forest (southern willow forest) • Disturbed wetland • Natural flood channel
Adjacent Vegetation	<ul style="list-style-type: none"> • Coastal sage scrub • Developed land • Disturbed land • Disturbed wetland (Arundo-dominated) • Ornamental plantings
Habitat and Wildlife	Although not suitable for other sensitive bird species, the habitat contained within the facility may provide opportunities for nesting and/or foraging raptors or other migratory species
MHPA	The facility is not within or adjacent to the Multi Habitat Planning Area (MHPA). The nearest MHPA boundary is located approximately 350 feet north of the channel.
Mitigation Within Facility	None

Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources	
Resource Identified in APE	P-37-016029
Resource Identified Adjacent to APE	None
Resource Type	Lithic artifact scatter

Historical Resources	
Resource Identified in APE	Channel; c. 1966–1972 earthen channel
Potential Historical Resources	Yes
Constraint Identified	

South Chollas Creek Encanto Branch - Imperial Facility Group

Technical Summary

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-1a
EP-BIO-6	MM-BIO-2
Health and Safety/Hazards (HAZ)	Historic, Archaeological, and Tribal Cultural Resources (HR and CR)
EP-HAZ-3	MM-HR-1
Solid Waste (SW)	MM-HR-2
EP-SW-2	Noise (NOI)
EP-SW-3	MM-NOI-1
EP-SW-4	
EP-SW-5	
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

Technical Summary

South Chollas Creek

Encanto Branch - Jamacha Facility Group

Segment Names (Facility numbers):

Jamacha 1 (5-05-603) (See Appendix
A-1)

Jamacha 2 (5-05-606)

Jamacha 3 (5-05-610)

Lobrico 1 (5-05-702)

Cadman 1 (5-05-802)

South Chollas Creek Encanto Branch - Jamacha Facility Group

Technical Summary

Jamacha Segment 2 Detail

Facility Type	Earthen channel
Substrate Detail	Earthen bottom and banks
Location Within Watershed	Lower reach of the South Chollas Creek Encanto Branch, upstream of South Chollas Creek Encanto Branch (Jamacha Segment 1)
Tributaries (listed from downstream to upstream)	South Chollas Creek Encanto Branch
Facility Length	Approximately 1,030 feet
Top-of-Bank Width	Approximately 20.5–39.5 feet
Bottom Facility Width	Approximately 5.5–17 feet
Facility Depth	Approximately 0.5–6 feet
Adjacent Land Use	Open Space, Single-Family Residential, Transportation, Vacant
As-Built Drawing Number	11251-L
Coastal Zone	No



Figure 1: July 2017, downstream of Beacon Drive culvert (3-foot-diameter RCP), looking west. Riprap apron and dense vegetation present.



Figure 2: Vicinity Map of Jamacha Segment 2

South Chollas Creek Encanto Branch - Jamacha Facility Group

Technical Summary

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses, and notes to illustrate special habitat and wildlife.

- | | |
|----------------------------|--|
| Facility Vegetation | <ul style="list-style-type: none"> • Disturbed freshwater marsh • Disturbed wetland • Disturbed wetland (Arundo-dominated) • Freshwater marsh • Natural flood channel |
|----------------------------|--|

- | | |
|----------------------------|--|
| Adjacent Vegetation | <ul style="list-style-type: none"> • Coastal sage scrub • Developed land • Disturbed coastal sage scrub • Disturbed land • Disturbed wetland (Arundo-dominated) • Non-native grassland • Ornamental plantings |
|----------------------------|--|

Habitat and Wildlife	There is limited suitable habitat contained within the facility for wildlife. However, raptors could use the ornamental vegetation present adjacent to the facility for nesting/roosting. Coastal sage scrub habitat is isolated and unlikely to support coastal California gnatcatcher.
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MHPA Mitigation Within Facility	The facility is not within or adjacent to the Multi Habitat Planning Area (MHPA) Identified as a potential compensatory mitigation area. A compensatory mitigation plan has not yet been prepared.
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Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources

Resource Identified in APE	None
Resource Identified Adjacent to APE	None
Resource Type	N/A

Historical Resources

Resource Identified in APE	None
Potential Historical Resources	None
Constraint Identified	

South Chollas Creek Encanto Branch - Jamacha Facility Group

Technical Summary

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-1a
EP-BIO-6	MM-BIO-2
Health and Safety/Hazards (HAZ)	Historic, Archaeological, and Tribal Cultural Resources (HR and CR)
EP-HAZ-3	Noise (NOI)
Paleontological Resources (PAL)	MM-NOI-1
EP-PAL-1	
Solid Waste (SW)	
EP-SW-2	
EP-SW-3	
EP-SW-4	
EP-SW-5	
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

South Chollas Creek Encanto Branch - Jamacha Facility Group

Technical Summary

Jamacha Segment 3 Detail

Facility Type	Earthen channel
Substrate Detail	Earthen bottom and banks
Location Within Watershed	Lower reach of the South Chollas Creek Encanto Branch, upstream of South Chollas Creek Encanto Branch (Jamacha Segment 2)
Tributaries (listed from downstream to upstream)	South Chollas Creek Encanto Branch
Facility Length	Approximately 2,149 feet
Top-of-Bank Width	Approximately 9–55 feet
Bottom Facility Width	Approximately 2.5–32 feet
Facility Depth	Approximately .5–3.5 feet
Adjacent Land Use	Open Space, Single-Family Residential, Transportation
As-Built Drawing Number	None
Coastal Zone	No



Figure 1: July 2017, looking upstream from Beacon Drive culvert (3-foot-diameter RCP)



Figure 2: Vicinity Map of Jamacha Segment 3

South Chollas Creek Encanto Branch - Jamacha Facility Group

Technical Summary

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses, and notes to illustrate special habitat and wildlife.

Facility Vegetation	<ul style="list-style-type: none">• Disturbed wetland• Natural flood channel
Adjacent Vegetation	<ul style="list-style-type: none">• Developed land• Disturbed land• Ornamental plantings
Habitat and Wildlife	There are no significant biological resources suitable for sensitive species use within or adjacent to the facility
MHPA	The facility is not within or adjacent to the Multi Habitat Planning Area (MHPA)
Mitigation Within Facility	Identified as a potential compensatory mitigation area. A compensatory mitigation plan has not yet been prepared.

Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources

Resource Identified in APE	None
Resource Identified Adjacent to APE	None
Resource Type	N/A

Historical Resources

Resource Identified in APE	Channel; c. 1953 earthen channel
Potential Historical Resources	Yes
Constraint Identified	

South Chollas Creek Encanto Branch - Jamacha Facility Group

Technical Summary

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-1a
EP-BIO-6	MM-BIO-2
Health and Safety/Hazards (HAZ)	Historic, Archaeological, and Tribal Cultural Resources (HR and CR)
EP-HAZ-3	MM-HR-1
Paleontological Resources (PAL)	MM-HR-2
EP-PAL-1	Noise (NOI)
Solid Waste (SW)	MM-NOI-1
EP-SW-2	
EP-SW-3	
EP-SW-4	
EP-SW-5	
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

South Chollas Creek Encanto Branch - Jamacha Facility Group

Technical Summary

Cadman Segment 1 Detail

Facility Type	Earthen channel
Substrate Detail	Earthen bottom and banks
Location Within Watershed	Lower reach of the South Chollas Creek Encanto Branch, upstream of South Chollas Creek Encanto Branch (Jamacha Segment 1)
Tributaries (listed from downstream to upstream)	South Chollas Creek Encanto Branch
Facility Length	Approximately 398 feet
Top-of-Bank Width	Approximately 20–42 feet
Bottom Facility Width	Approximately 7–21 feet
Facility Depth	Approximately 2–7 feet
Adjacent Land Use	Commercial, Open Space, Parks, Public Facilities and Utilities, Single-Family Residential, Transportation, Vacant
As-Built Drawing Number	None
Coastal Zone	No



Figure 1: April 2016, looking downstream at the dense grass in channel

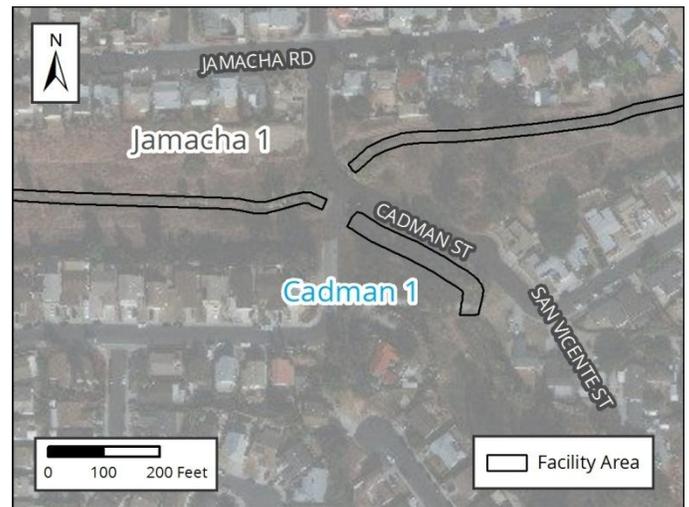


Figure 2: Vicinity Map of Cadman Segment 1

South Chollas Creek Encanto Branch - Jamacha Facility Group

Technical Summary

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses, and notes to illustrate special habitat and wildlife.

- | | |
|----------------------------|--|
| Facility Vegetation | <ul style="list-style-type: none">• Disturbed freshwater marsh• Disturbed wetland• Disturbed wetland (Arundo-dominated)• Freshwater marsh• Natural flood channel |
|----------------------------|--|

- | | |
|----------------------------|---|
| Adjacent Vegetation | <ul style="list-style-type: none">• Coastal sage scrub• Developed land• Disturbed coastal sage scrub• Disturbed land• Disturbed wetland (Arundo-dominated)• Eucalyptus woodland• Non-native grassland• Ornamental plantings• Riparian forest (coast live oak) |
|----------------------------|---|

Habitat and Wildlife	There are no significant biological resources suitable for sensitive species use within the facility, but raptors or other migratory species may use the riparian forest (coast live oak), eucalyptus woodland, and coastal sage scrub habitat adjacent to the channel. Coastal sage scrub habitat is isolated and unlikely to support coastal California gnatcatcher.
-----------------------------	--

MHPA	The facility is not within or adjacent to the Multi Habitat Planning Area (MHPA)
-------------	--

Mitigation Within Facility	Identified as potential compensatory mitigation area. A compensatory mitigation plan has not yet been prepared.
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South Chollas Creek Encanto Branch - Jamacha Facility Group

Technical Summary

Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources

Resource Identified in APE	None
Resource Identified Adjacent to APE	None
Resource Type	N/A

Historical Resources

Resource Identified in APE	None
Potential Historical Resources	None
Constraint Identified	

South Chollas Creek Encanto Branch - Jamacha Facility Group

Technical Summary

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-1a
EP-BIO-6	MM-BIO-2
Health and Safety/Hazards (HAZ)	Noise (NOI)
EP-HAZ-3	MM-NOI-1
Paleontological Resources (PAL)	
EP-PAL-1	
Solid Waste (SW)	
EP-SW-2	
EP-SW-3	
EP-SW-4	
EP-SW-5	
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

South Chollas Creek Encanto Branch - Jamacha Facility Group

Technical Summary

Lobrico Segment 1 Detail

Facility Type	Earthen channel
Substrate Detail	Earthen bottom and banks
Location Within Watershed	Lower reach of the South Chollas Creek Encanto Branch, immediately upstream of South Chollas Creek Encanto Branch (Jamacha Segment 1)
Tributaries (listed from downstream to upstream)	No named tributaries
Facility Length	Approximately 344 feet
Top-of-Bank Width	Approximately 4.25–14 feet
Bottom Facility Width	Approximately 2–11 feet
Facility Depth	Approximately .75–1.25 feet
Adjacent Land Use	Commercial, Open Space, Parks, Public Facilities and Utilities, Single-Family Residential, Transportation, Vacant
As-Built Drawing Number	0968-D & 27667-D
Coastal Zone	No



Figure 1: July 2017, looking downstream



Figure 2: Vicinity Map of Lobrico Segment 1

South Chollas Creek Encanto Branch - Jamacha Facility Group

Technical Summary

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses, and notes to illustrate special habitat and wildlife.

Facility Vegetation	<ul style="list-style-type: none">• Disturbed wetland (Arundo-dominated)
Adjacent Vegetation	<ul style="list-style-type: none">• Developed land• Disturbed freshwater marsh• Disturbed land• Disturbed wetland (Arundo-dominated)• Natural flood channel
Habitat and Wildlife	There are no significant biological resources suitable for sensitive species use within or adjacent to the facility
MHPA	The facility is not within or adjacent to the Multi Habitat Planning Area (MHPA)
Mitigation Within Facility	None

Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources	
Resource Identified in APE	None
Resource Identified Adjacent to APE	None
Resource Type	N/A

Historical Resources	
Resource Identified in APE	Channel; c. 1968–1971 earthen channel
Potential Historical Resources	Yes
Constraint Identified	

South Chollas Creek Encanto Branch - Jamacha Facility Group

Technical Summary

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-1a
EP-BIO-6	MM-BIO-2
Health and Safety/Hazards (HAZ)	Noise (NOI)
EP-HAZ-3	MM-NOI-1
Paleontological Resources (PAL)	
EP-PAL-1	
Solid Waste (SW)	
EP-SW-2	
EP-SW-3	
EP-SW-4	
EP-SW-5	
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

Technical Summary

Paleta Creek - Solola Facility Group

Segment Names (Facility numbers):

Solola 1 (5-06-020) (See Appendix A-1)

Solola 2 (5-06-023) (See Appendix A-1)

Cervantes 1 (5-06-025)

Paleta Creek - Solola Facility Group

Technical Summary

Cervantes Segment 1 Detail

Facility Type	Earthen channel
Substrate Detail	Earthen bottom and banks
Location Within Watershed	Upper reach of Paleta Creek, immediately upstream of Paleta Creek (Solola Segment 2)
Tributaries (listed from downstream to upstream)	Paleta Creek
Facility Length	Approximately 2,581 feet
Top-of-Bank Width	Approximately 45 feet
Bottom Facility Width	Approximately 10 feet
Facility Depth	Approximately 7 feet
Adjacent Land Use	Open Space, Single-Family Residential, Transportation, Vacant
As-Built Drawing Number	17925-11-D
Coastal Zone	No



Figure 1: April 2017, looking downstream at vegetation



Figure 2: Vicinity Map of Cervantes Segment 1

Paleta Creek - Solola Facility Group

Technical Summary

Facility Maintenance History

This section describes previous facility maintenance, regulatory approvals, and mitigation.

History of Maintenance	June 2005: Emergency maintenance conducted March 2006: Minor maintenance conducted December 2007: Emergency maintenance conducted January 2008 – March 2019: No maintenance conducted
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Past Regulatory Approvals

CEQA	None
CDP	N/A
SDP	None
404	None
401	None
1602	None

Mitigation for Previous Impacts	None
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Hydrology and Hydraulics Summary

This section describes the current conditions in the facility related to hydrology/hydraulics, as well as analysis of hydraulic capacity before and after proposed maintenance, and the potential for erosion following maintenance.

Current Conditions Affecting Facility Capacity	The vegetation was observed to range from light to dense and there was little evidence of sediment deposition
---	---

Hydrologic Peak Flows

Storm Event	2-year	5-year	10-year	25-year	50-year	100-year
Q (cubic feet per second [cfs])	43	100	160	250	390	470

Hydraulic Capacity of Facility

Current Capacity	470 cfs
Proposed MWMP Maintained Capacity	N/A
Maintenance Recommendation	No maintenance is recommended at this time
In-Stream Post-Maintenance Erosion Control Recommendation	N/A (no maintenance)

Paleta Creek - Solola Facility Group

Technical Summary

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses, and notes to illustrate special habitat and wildlife.

- | | |
|----------------------------|--|
| Facility Vegetation | <ul style="list-style-type: none"> • Disturbed coastal sage scrub • Disturbed wetland • Natural flood channel • Riparian scrub (southern willow scrub) |
|----------------------------|--|

- | | |
|----------------------------|---|
| Adjacent Vegetation | <ul style="list-style-type: none"> • Developed land • Disturbed coastal sage scrub • Disturbed land • Disturbed wetland • Ornamental plantings • Riparian scrub (southern willow scrub) |
|----------------------------|---|

Habitat and Wildlife	There is limited suitable habitat for sensitive species, such as coastal California gnatcatcher and least Bell's vireo, within and adjacent to the facility. However, due to the disturbed nature of the site, the potential for these species to occur is low.
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MHPA	The facility is not within or adjacent to the Multi Habitat Planning Area (MHPA)
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Mitigation Within Facility	None
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Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources

Resource Identified in APE	None
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Resource Identified Adjacent to APE	None
--	------

Resource Type	N/A
----------------------	-----

Historical Resources

Resource Identified in APE	Channel; 1954 earthen channel
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Potential Historical Resources	Yes
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Constraint Identified	
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Paleta Creek - Solola Facility Group

Technical Summary

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-1a
EP-BIO-6	MM-BIO-2
Health and Safety/Hazards (HAZ)	Historic, Archaeological, and Tribal Cultural Resources (HR and CR)
EP-HAZ-3	MM-HR-1
Paleontological Resources (PAL)	MM-HR-2
EP-PAL-1	Noise (NOI)
Solid Waste (SW)	MM-NOI-1
EP-SW-2	
EP-SW-3	
EP-SW-4	
EP-SW-5	
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

Technical Summary

Tijuana River - Tocayo Facility Group

Segment Names (Facility numbers):

Tocayo 1 (6-02-115)

Tocayo 2 (6-02-118) (See Appendix
A-1)



Tijuana River - Tocayo Facility Group

Technical Summary

Tocayo Segment 1 Detail

Facility Type	Earthen channel
Substrate Detail	Earthen bottom and banks
Location Within Watershed	Upper reach of Tijuana River unnamed tributary, immediately upstream of Tijuana River Estuary
Tributaries (listed from downstream to upstream)	Tijuana River Unnamed Tributary
Facility Length	Approximately 96 feet
Top-of-Bank Width	Approximately 30–50 feet
Bottom Facility Width	Approximately 6–20 feet
Facility Depth	Approximately 8 feet
Adjacent Land Use	Open Space, Single-Family Residential, Transportation, Vacant
As-Built Drawing Number	None
Coastal Zone	N-APP-2, DEF-CER



Figure 1: April 2017, looking upstream vegetation and outlet of double 10-foot by 4-foot RCB culvert



Figure 2: Vicinity Map of Tocayo Segment 1

Tijuana River - Tocayo Facility Group

Technical Summary

Biological Resource Summary

This section describes the facility vegetation community, adjacent vegetation and land uses, and notes to illustrate special habitat and wildlife.

Facility Vegetation	<ul style="list-style-type: none">• Natural flood channel
Adjacent Vegetation	<ul style="list-style-type: none">• Developed concrete-lined channel• Developed land• Eucalyptus woodland• Ornamental plantings• Riparian forest (southern willow forest; concrete-lined)
Habitat and Wildlife	There is limited suitable habitat contained within the facility for wildlife. However, raptors could use the ornamental vegetation and eucalyptus woodland present adjacent to the facility for nesting/roosting.
MHPA	The facility is not within or adjacent to the Multi Habitat Planning Area (MHPA). The nearest MHPA boundary is located more than 1,000 feet south of the channel.
Mitigation Within Facility	None

Historical, Archaeological, and Tribal Cultural Resource Summary

This section describes the historical, archeological, and tribal cultural resources identified in, or adjacent to, the Area of Potential Effect (APE) for this facility.

Archeological and Tribal Resources

Resource Identified in APE	None
Resource Identified Adjacent to APE	None
Resource Type	N/A

Historical Resources

Resource Identified in APE	None
Potential Historical Resources	None
Constraint Identified	

Tijuana River - Tocayo Facility Group

Technical Summary

Environmental Protocols and Mitigation Measures

This section lists the Environmental Protocols (EPs) and Mitigation Measures (MMs) and that are applicable to the proposed facility maintenance.

Environmental Protocols (EP)	Mitigation Measures (MM)
Biological Resources (BIO)	Aesthetics/Visual Effects and Neighborhood Character (AES)
EP-BIO-1	MM-AES-1
EP-BIO-2	Air Quality (AQ)
EP-BIO-3a, 3b, 3c	MM-AQ-1
EP-BIO-4	Biological Resources (BIO)
EP-BIO-5	MM-BIO-1a
EP-BIO-6	MM-BIO-2
Health and Safety/Hazards (HAZ)	Noise (NOI)
EP-HAZ-3	MM-NOI-1
Paleontological Resources (PAL)	
EP-PAL-1	
Solid Waste (SW)	
EP-SW-2	
EP-SW-3	
EP-SW-4	
EP-SW-5	
EP-SW-6	
EP-SW-7	
EP-SW-8	
Water Quality (WQ)	
EP-WQ-1	

APPENDIX A-6
Additional Facilities Inspected
(No Evaluation Completed;
No FMPs Proposed)

APPENDIX A-6

Additional Facilities Inspected (Program-Level facilities)

APPENDIX A-6 ADDITIONAL FACILITIES INSPECTED (PROGRAM-LEVEL FACILITIES)

The following list includes additional facilities that are annually inspected where no routine maintenance or repair is proposed and a Facility Maintenance Plan (FMP) has not been prepared, but limited program-level activities may occur, such as minor maintenance or emergency maintenance. Changed conditions within any of these facilities may trigger the need to complete or update the project-level analyses to prepare an FMP to conduct future routine maintenance. Facilities with technical summaries included in Appendix A-5 where no routine maintenance is proposed (i.e., no FMP) are identified with an asterisk. In Figures 1-1 through 1-14, facilities that are blue and are identified in the legend as “Additional Facilities (Limited Program-Level Activities)” correspond to individual facility numbers from the following list.

San Dieguito River Watershed

- 1-04-250

Los Peñasquitos Watershed

- | | | |
|-------------|------------|------------|
| • 2-01-000* | • 2-03-020 | • 2-03-480 |
| • 2-01-003 | • 2-03-180 | • 2-03-484 |
| • 2-01-230 | • 2-03-190 | • 2-03-492 |
| • 2-02-021 | • 2-03-220 | • 2-03-494 |
| • 2-02-040 | • 2-03-250 | • 2-03-510 |
| • 2-03-004* | • 2-03-400 | • 2-04-130 |
| • 2-03-006* | • 2-03-402 | • 2-06-101 |
| • 2-03-008 | • 2-03-420 | |
| • 2-03-010 | • 2-03-440 | |

Mission Bay Watershed

- | | | |
|------------|------------|------------|
| • 3-00-110 | • 3-02-007 | • 3-02-140 |
| • 3-00-130 | • 3-02-009 | • 3-02-150 |
| • 3-00-135 | • 3-02-012 | • 3-02-152 |
| • 3-00-140 | • 3-02-014 | • 3-03-110 |
| • 3-02-001 | • 3-02-016 | • 3-03-150 |
| • 3-02-003 | • 3-02-018 | • 3-04-001 |
| • 3-02-005 | • 3-02-021 | • 3-04-003 |

APPENDIX A-6 (Continued)

- 3-04-005
- 3-04-007
- 3-04-101*
- 3-04-150
- 3-04-165
- 3-04-180
- 3-04-200
- 3-04-260

San Diego River Watershed

- 4-00-000
- 4-00-002
- 4-00-004
- 4-00-006
- 4-00-008
- 4-00-010
- 4-00-012
- 4-00-014
- 4-00-016
- 4-00-018
- 4-00-020
- 4-00-022
- 4-00-024
- 4-00-026
- 4-00-028
- 4-00-030
- 4-00-032
- 4-00-034
- 4-00-036
- 4-00-038
- 4-00-040
- 4-00-042
- 4-00-044
- 4-00-046
- 4-00-048
- 4-00-050
- 4-00-052
- 4-00-054
- 4-00-056
- 4-00-058
- 4-00-060
- 4-00-062
- 4-00-064
- 4-02-122
- 4-02-145
- 4-04-008*
- 4-04-030
- 4-04-033
- 4-04-150
- 4-06-105
- 4-06-900
- 4-07-013
- 4-07-015
- 4-07-019
- 4-07-104
- 4-07-155
- 4-07-252
- 4-08-005
- 4-08-102
- 4-08-150*

Pueblo San Diego Watershed

- 5-03-002
- 5-03-104
- 5-04-000
- 5-04-002
- 5-04-008
- 5-04-011
- 5-04-013
- 5-04-015
- 5-04-018
- 5-04-020
- 5-04-022
- 5-04-025
- 5-04-027
- 5-04-029
- 5-04-150
- 5-04-180
- 5-04-229*
- 5-04-235

APPENDIX A-6 (Continued)

- 5-04-237
- 5-04-245*
- 5-05-002
- 5-05-004
- 5-05-010
- 5-05-013
- 5-05-016
- 5-05-019*
- 5-05-023
- 5-05-025
- 5-05-027
- 5-05-029
- 5-05-031
- 5-05-033
- 5-05-100
- 5-05-103
- 5-05-302
- 5-05-304*
- 5-05-308
- 5-05-310
- 5-05-312
- 5-05-314
- 5-05-402
- 5-05-502
- 5-05-606*
- 5-05-610*
- 5-05-702*
- 5-05-802*
- 5-06-025*
- 5-07-010
- 5-07-150

Otay Watershed

- 5-22-018
- 5-22-020
- 5-22-032
- 5-22-901

Tijuana River Watershed Management Area

- 6-02-115*
- 6-04-100
- 6-04-255
- 6-06-900

* Facilities where technical analysis was completed as part of the MWMP; included in Appendix A-5.

APPENDIX A-6 (Continued)

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