

Municipal Waterways Maintenance Plan Annual Report Fiscal Year 2022



THINK BLUE®
City of San Diego
Stormwater Department

October 2022

**City of San Diego Stormwater
Department**

2781 Caminito Chollas
San Diego, CA 92105

Executive Summary

The City of San Diego's (City) Stormwater Department (SWD) protects and enhances San Diego's vibrant communities through exceptional public service and infrastructure that reflects the importance of clean water and flood-safe communities. SWD also views stormwater as a valuable resource which supports public health, the economy, the environment, and the water supply. SWD works to provide clean waterways and flood-safe communities across San Diego by maintaining stormwater facilities in accordance with the City Charter and Council Policy.

Stormwater facilities are typically located within environmentally sensitive areas that are also habitat for sensitive wildlife and plants, which are highly regulated by local, state, and federal agencies. With stakeholder and regulatory agency input, SWD developed the Municipal Waterways Maintenance Plan (MWMP) which balances the City's need to be responsive and transparent, provide flood control, and to minimize and mitigate any adverse environmental effects that result from its activities (City of San Diego, 2020a). The MWMP covers project- and program-level activities and authorizes maintenance and repair across stormwater assets and was adopted by City Council in March 2020.

SWD completes an annual report to document stormwater facility maintenance activities and associated mitigation pursuant to Section 4.1 of the MWMP, Environmental Impact Report (EIR) Section 4.4.1.5, and the requirements of several regulatory permits. This current fiscal year (FY) 2022 annual report covers the second year of MWMP activities that occurred between July 1, 2021 and June 30, 2022 in which SWD removed approximately 13,734 tons of sediment and vegetation. More detail on the background of the program is provided in Section 1. Prior to the approval of the MWMP in 2020, the City used the Master Stormwater System Maintenance Program (MMP). The City no longer uses the MMP and now uses the MWMP to achieve its stormwater maintenance goals.

During FY 2022, SWD performed the following maintenance projects which are discussed in Section 2:

- Roselle 1 & 2 (2-03-000 & 2-03-002) - *Routine Maintenance*
- Flintkote 1 (2-03-100) - *Routine Maintenance*
- Pacific Beach-Olney-1 (PB Olney-1) (3-02-101) and Mission Bay High School 1 (MBHS-1) (3-02-103) - *Routine Maintenance*
- Alvarado 1 (4-07-021) - *Routine Maintenance*
- National 1 & 2 (5-04-004 & 5-04-006) - *Routine Maintenance*
- Industrial 2 (2-01-122) - *Emergency Maintenance*
- Chateau 1 (Paola) (3-04-055) - *Emergency Maintenance*
- Camino del Arroyo 1 (4-03-101) and Camino del Rio 1 (4-03-103) - *Emergency Maintenance*
- Smuggler's Gulch 1 (6-01-100) - *Emergency Maintenance*

In FY 2022, SWD remained in compliance with all MWMP regulatory permits and agreements during the implementation of project-level as well as program-level activities at its facilities. For routine maintenance projects approved and completed as part of the MWMP, SWD will conduct ongoing repeat maintenance within the assessed and mitigated impact areas in compliance with its approvals. In such instances, SWD will provide the necessary pre- maintenance notification to the agencies. For facilities where certain approvals may lapse, SWD will obtain follow-up authorizations prior to the start of maintenance. Emergency maintenance was completed in FY 2022 when it was determined that there

was a sudden and imminent threat to life, property, and/or essential public services requiring immediate action. During this fiscal year, SWD also completed numerous minor maintenance activities. By definition, these activities do not result in significant environmental impacts, do not require compensatory mitigation, and the details of such activities are not included in this annual report.

The MWMP and approved regulatory permits require that compensatory mitigation be provided to offset impacts to biological resources (e.g. uplands or wetlands) related to maintenance activities. Section 3 provides the status of these compensatory mitigation sites associated with the FY 2022 routine and emergency channel maintenance projects as follows:

- El Cuervo Wetland Mitigation Area (in long-term management)
- El Cuervo del Sur Phase I (continued initial 5-year maintenance and monitoring)
- Los Peñasquitos Canyon Enhancement Phase I (completed 5-year maintenance and monitoring)
- El Cuervo del Sur Phase II (mitigation approved for additional facilities, permit approvals in process)
- Stadium (San Diego River) Wetlands Mitigation, managed by Public Utilities Department (credits purchased and allocated)
- 2015/16 Emergency Mitigation Plan (in 5-year monitoring & maintenance)
- Tijuana River Valley In-Channel Enhancement Area and the Out-of-Channel Enhancement Area (in long-term management)
- Tijuana River Valley Emergency Channel Mitigation Project (Creation Site) (in long-term management)

In FY 2022, SWD also made progress on other Permittee Responsible Mitigation (PRM) and Advanced Permittee Responsible Mitigation (APRM) sites that will provide the required mitigation for past as well as future facility maintenance activities. Briefly discussed in Section 3, these sites include:

- Sefton Field (project design in process)
- Montongo (project design in process)
- Pacific Highway (project design in process)
- Rancho Jamul Phase IIB, managed by RES (permit approvals in process for mitigation bank)
- Hollister Quarry (mitigation approved for additional facilities, permit approvals in process)
- Otay Reed (permit approvals in process)
- Smythe-Bandola (permit approvals in process)
- Los Peñasquitos Canyon Enhancement Phase II (mitigation approved for additional facilities, permit approvals in process)

Section 4 of this report provides information on routine maintenance projects prioritized for FY 2023 (July 1, 2022- June 30, 2023). Planning for FY 2023 projects began in FY 2022 for the following:

- Pomerado 2 (1-04-033)
- Tripp 1 (2-01-130)
- Mission Gorge 1 & 2 (4-07-002 & 4-07-004)
- Home 2 (5-04-224)

Due to aging infrastructure and the ever-changing environmental conditions, emergency maintenance is sometimes required which is an approved activity under the MWMP. Although SWD seeks to proactively maintain its infrastructure, unforeseen emergency conditions may arise in FY 2023 or in subsequent years

that will require immediate action. When emergency response is necessary, SWD provides proper notification to the resource agencies prior to the start of work and only completes the minimum amount of maintenance necessary to alleviate the emergency conditions.

Table of Contents

1.0 INTRODUCTION.....	1
1.1 Background	1
1.2 Regulatory Approvals.....	3
1.3 Annual Report Requirements.....	4
2.0 ROUTINE AND EMERGENCY MAINTENANCE ACTIVITIES (FY 2022).....	6
2.1 Roselle 1 & 2 (2-03-000 & 2-03-002) - Routine Channel Maintenance Project	11
2.2 Flintkote 1 (2-03-100) - Routine Channel Maintenance.....	13
2.3 Pacific Beach-Olney 1 (PB Olney-1) (3-02-101) and Mission Bay High School 1 (MBHS-1) (3-02-103) - Routine Channel Maintenance.....	15
2.4 Alvarado 1 (4-07-021) - Routine Channel Maintenance	17
2.5 National 1 & 2 (5-04-004 & 5-04-006) - Routine Channel Maintenance	19
2.6 Industrial 2 (2-01-122) - Emergency Channel Maintenance.....	21
2.7 Chateau 1 (Paola) (3-04-055) - Emergency Channel Maintenance.....	23
2.8 Camino del Arroyo 1 (4-03-101) and Camino del Rio 1 (4-03-103) - Emergency Channel Maintenance.....	25
2.9 Smuggler’s Gulch 1 (6-01-100) - Emergency Channel Maintenance	27
3.0 MITIGATION PROJECTS	29
3.1 Long-Term Management Mitigation Sites	32
3.1.1 El Cuervo Wetland Mitigation Area.....	32
3.1.2 Los Peñasquitos Canyon Enhancement (Phase I).....	32
3.1.3 Tijuana River Emergency Channel Maintenance Mitigation (Creation Site)	33
3.1.4 Tijuana River Valley In-Channel Enhancement Area and the Out-of-Channel Enhancement Area.....	33
3.2 Construction and/or 5-Year Maintenance & Monitoring Mitigation Sites	34
3.2.1 El Cuervo del Sur (Phase I).....	34
3.2.2 Wetland Mitigation Plan for 2015/16 Emergency Channel Maintenance.....	34
3.2.3 Stadium (San Diego River) Wetland Mitigation Project.....	35
3.3 Design and/or Permitting Mitigation Sites	36
3.3.1 El Cuervo del Sur (Phase II).....	36
3.4 Other Mitigation Sites	36
4.0 CONCLUSIONS AND FUTURE PROJECTS	40
5.0 REFERENCES.....	41

Tables

Table 1: MWMP Facilities Maintenance and Associated Mitigation for Fiscal Year 2022.....	7
Table 2: Roselle 1 & 2 Routine Channel Maintenance Impacts.....	12
Table 3: Flintkote 1 Routine Channel Maintenance Impacts.....	14
Table 4: Pacific Beach-Olney-1 (PB Olney-1) and Mission Bay High School 1 (MBHS-1) Routine Maintenance Impacts	16
Table 5: Alvarado 1 Routine Maintenance Impacts.....	18
Table 6: National 1 & 2 Routine Maintenance Impacts.....	20
Table 7: Industrial 2 Emergency Maintenance Impacts.....	22
Table 8: Chateau1 (Paola) Emergency Maintenance Impacts	24
Table 9: Camino del Arroyo 1 and Camino del Rio 1 Emergency Maintenance Impacts.....	26
Table 10: Smuggler's Gulch 1 Emergency Maintenance Impacts	28
Table 11: Mitigation Sites Associated with MWMP Facilities- FY 2022 Status	30
Table 12: Other MWMP Mitigation Sites' FY 2022 Progress	38
Table 13: Annual Work Plan (July 1, 2022 - June 30, 2023).....	40

Diagram

Diagram 1: Mitigation Process	29
-------------------------------------	----

Appendices

A	Municipal Waterways Maintenance Plan Annual Report Figures
B	Master Stormwater Facility and Mitigation List
C	Pre- and Post- Maintenance Photos

1.0 Introduction

1.1 Background

Under City of San Diego (City) Charter Section 26.1 and Council Policy 800-04 (City of San Diego, 2012), the City is responsible for maintaining adequate drainage facilities to remove stormwater runoff in an efficient, economic, and environmentally and aesthetically acceptable manner for the protection of property and life. The City is responsible for the maintenance of public drainage facilities that are designed and constructed to City standards and located within a public street or drainage easement dedicated to the City. The City's Stormwater Department (SWD) does the necessary work to meet these needs with a vision of providing clean waterways and flood-safe communities across San Diego.

SWD operates and maintains drainage channels, ditches, and basins that convey stormwater and urban runoff (e.g. from irrigated landscaped areas, driveways, and streets) to downstream receiving waters for the purpose of reducing flood risk and for the effective management of water resources in the City. Other components of the City's stormwater system include but are not limited to 1,148 miles of storm drainpipe, 6 miles of levees, 15 pump stations, and 46,033 structures.

Maintenance of channels primarily involves the removal of sediment, vegetation, debris, and trash to maximize stormwater conveyance capacity in support of the City's Municipal Separate Storm Sewer System (MS4) permit. SWD conducts a comprehensive list of both maintenance and repair activities that are outlined in the MWMP and discussed in this report. The long-term performance of the entire system is dependent upon ongoing and proper maintenance of channel sections essential for flood control.

Historically, maintenance of stormwater conveyance system facilities occurred on an as-needed basis as a part of normal City operations without public review or regulatory permits. In 2013, the City adopted the Master Stormwater System Maintenance Program (MMP) to govern channel operation and maintenance activities based on a certified final recirculated Programmatic Environmental Impact Report (PEIR). Subsequently, a lawsuit was filed against the MMP (*San Diegans for Open Government et al. v. City of San Diego*, San Diego Superior Court Case No. 37-2011-00101571), and the City entered into a settlement agreement that required, among other things, that the MMP PEIR be considered null and void as of September 2018 (*SDOG v. City of San Diego* 2013).

In response, the City prepared the Municipal Waterways Maintenance Plan (MWMP) and its EIR to guide SWD activities. The MWMP was approved in 2020 and was developed through a collaborative and iterative process involving City staff and multiple stakeholders including nonprofit organizations, community groups, resource agencies, and the public.

The following are the primary objectives of the MWMP:

1. Public safety and flood risk reduction
 - Protect life and property adjacent to, downstream, and upstream of affected channels from flooding and environmental degradation.
2. Responsiveness to reduce flood risk
 - Provide for timely and consistent routine operations and maintenance in the affected channels and associated stormwater conveyance infrastructure.

3. Avoid, minimize, and/or mitigate potential effects to environmental resources
 - Avoid, minimize, and/or mitigate significant adverse environmental effects resulting from routine maintenance of stormwater facilities.
 - Incorporate and adapt to water quality management strategies intended to protect water quality and address flooding impacts.
4. Proactive and timely approval process
 - Provide project-level analysis upfront to expedite subsequent authorizations for routine and preventative maintenance activities within stormwater facilities.
 - Identify a review-and-approval process to include additional stormwater facilities and maintenance activities that follow the protocols and requirements of the MWMP.
 - Reduce the need to conduct emergency maintenance during significant storm events by implementing preventative maintenance activities.

The objectives of the MWMP outline the responsibility of SWD to be responsive to newly identified flood risks while obtaining streamlined approvals for routine preventative maintenance that reduce these risks. To accomplish this, the MWMP identifies the following:

1. A range of plan-wide activities that may occur throughout the stormwater system where flood risks may arise and that would be conducted in accordance with a regulatory framework identified under the MWMP and associated permits.
2. A list of Facility Maintenance Plans (FMPs) that provide specific details and requirements for many but not all facilities that are likely to require routine maintenance and repair.

Together, these two components provide operational flexibility as well as site-specific information about SWD facilities that require maintenance and repair, and it also attempts to streamline the review and approval process that is required before maintenance can begin. In preparing the MWMP, once the purpose and intent of the plan were established, SWD conducted technical and environmental analysis in support of its EIR to determine the scope, scale, and potential environmental impacts at each facility where an FMP was developed. In addition to the FMPs, SWD included a majority of its systemwide facilities and maintenance needs in the EIR review process. The MWMP and its EIR were analyzed and considered by each of the six regulatory agencies that issued permits and approvals for the MWMP. Overall, the EIR analyzed SWD activities at the project-level for facilities where an FMP was developed and at the program-level (discussed in more detail below) for activities that included but were not limited to minor maintenance, compensatory mitigation sites, and emergencies. This was done in compliance with the California Environmental Quality Act (CEQA).

As a result of these efforts, a final MWMP was developed that included a framework for conducting routine maintenance for 66 Facility Maintenance Plans (FMPs) (50 channels/ditches, 6 basins, and 10 structure groups) that were analyzed at the project-level in the EIR. Program-level activities included in the MWMP cover minor maintenance or repair projects that do not impact Environmentally Sensitive Lands (ESL) (including jurisdictional/coastal resources), as well as changed conditions for new or substantially amended FMPs, design and construction of compensatory mitigation sites, and emergency maintenance or repair projects. Both the project- and program-level elements were implemented to support the maintenance needs of the City's stormwater system. SWD can also amend the MWMP, as necessary, to identify additional or project-specific activities and facilities that may not have been included or considered. The MWMP EIR (Project No. 616992; SCH No. 2017071022) was certified by the San Diego City Council in June 2020 (City of San Diego, 2020b). The MWMP and associated EIR have no expiration date.

In accordance with the MWMP goals and objectives, SWD completes annual evaluations for FMP covered facilities to prioritize upcoming maintenance (further discussed in Section 2.0) based on hydrologic and hydraulic (H&H) analysis, potential flood risks, and stakeholder input. The priority list of the facilities SWD anticipates maintaining in any upcoming fiscal year is required to be distributed to the regulatory agencies before July 1st. This provides the agencies the location and quantity of facilities SWD expects to submit for their review and approval. Because resource agency review must occur within a short timeframe, SWD attempts to begin its prioritization, planning and permitting phase early, often before the fiscal year in which maintenance would occur. However, depending on resource availability and other factors, this is sometimes not possible and SWD relies on the agencies to assist by helping expedite the review and approval of its submittals when necessary.

In general, the goal of SWD is to avoid or minimize impacts to environmental resources for the activities that it performs. When SWD completes its planned routine maintenance projects, it also ensures permit conditions and required mitigation measures are implemented. For emergency projects every effort is made to minimize impacts and environmental monitoring is completed in support of permit and notification requirements. These activities are then reported to the resource agencies annually which also includes details about the compensatory mitigation provided or obtained for each project completed.

The remainder of this report discusses MWMP approvals, reporting requirements, and the activities implemented by SWD over the past fiscal year to meet the goals of the MWMP. Section 1.3 details the requirements of this report.

1.2 Regulatory Approvals

Many of the maintenance activities identified in the MWMP require review or approval under various regulations; including but not limited to the Clean Water Act (CWA), Endangered Species Act (ESA), California Coastal Act, California Fish and Game Code, California Porter-Cologne Act, CEQA, and the City of San Diego Municipal Code. Additionally, as part of the subsequent and streamlined review process established by the MWMP for all project- and many program level activities prior to the start of work, SWD often works with the public, various stakeholders, non-governmental organizations, and environmental groups in an effort to avoid, minimize, and/or mitigate MWMP related impacts.

The following is a brief status of each of the regulatory permits and the coordination completed in association with the MWMP:

Local

- The MWMP EIR (Project No. 616992; SCH No. 2017071022) and associated Mitigation, Monitoring, and Reporting Program were certified and adopted by the San Diego City Council on June 9, 2020
- A Master Site Development Permit (SDP; No. 2392210) was approved by the San Diego City Council on June 23, 2020 and does not have an expiration date.

State

- A Master 401 Water Quality Certification (No. R9-2021-0115) was issued by the California Regional Water Quality Control Board (RWQCB) San Diego Region on May 13, 2021 and is valid until May 13, 2026 (or when the USACE RGP 102 Section 404 permit expires, if sooner).

- A Master Streambed Alteration Agreement (SAA; No.1600-2019-0226-R5) was issued by the California Department of Fish and Wildlife (CDFW) on May 10, 2021 and is valid until April 30, 2031.
- A Coastal Development Permit (CDP; No. 6-20-0356 on appeal A-6-SAN-20-0029) was approved by the California Coastal Commission (CCC) on May 12, 2021 and is valid until May 12, 2026 with a 5-year extension request option.

Federal

- A Regional General Permit (RGP 102; No. SPL-2018-00652) was issued by the U.S. Army Corps of Engineers (USACE) on June 24, 2021 and is valid until June 17, 2026.

Each permit listed above generally requires SWD to prepare a Maintenance Plan and conduct a pre-maintenance impact assessment for its facilities where maintenance is proposed. If environmental impacts would occur, SWD must first process a Substantial Conformance Review (SCR, further discussed in Section 2.0) and submit notifications for approvals to the agencies before initial maintenance or related work can begin. This typically occurs for project-level FMPs as well as some program-level activities listed in the previous section.

In the case of the federal USACE RGP 102, a U.S. Fish and Wildlife Service (USFWS) Section 7 consultation was completed and a Biological Opinion (BO) was issued in support of the MWMPs RGP 102 approval. On-going consultation with the USFWS is expected to continue for facility maintenance activities as well as mitigation site development where suitable habitat exists and has the potential to support federally-listed endangered species. SWD will continue to work with the USACE and USFWS to streamline this coordination as necessary. The USACE also obtained a historic resources Section 106 consultation that was required by the National Historic Preservation Act (NHPA) during the RGP 102 review and approval process. This was done to consider the potential effects on cultural resources related to MWMP facility maintenance activities.

This annual report will be distributed to the resource agencies in conformance with the reporting conditions established by the permits. In addition to the reporting requirements outlined in the MWMP and the background provided in Section 1.1 above, the following section identifies specific agency reporting details that are also included in this document.

1.3 Annual Report Requirements

To meet conditions of the authorizations listed below, this report includes:

City of San Diego (City) MWMP Section 4.4 and EIR: (Project No. 616992; SCH No. 2017071022)

- Tabular summary of the acreages of sensitive vegetation impacted at each facility that was maintained and mitigation provided (Section 2);
- Updated master stormwater facility list to reflect the facilities for which impacts have been mitigated and no additional mitigation will be required (Appendix B);
- Summary of the status of mitigation that has been carried out during the current and previous years to mitigate for impacts to upland and wetland vegetation and sensitive species (Section 3, Table 11);
- Scaled map of each affected stormwater facility (Appendix A); and
- Digital date-stamped photographs of each area that was maintained in the reporting year (Appendix C).

As stated in the MWMP Section 4.4 the annual report will not include minor maintenance activities that do not have any impacts that require compensatory mitigation.

Regional Water Quality Control Board (RWQCB) 401 Certification (No. R9-2021-0115)

- A list of facilities on which maintenance was performed during the previous year, including the type and area of impact, start and end dates of maintenance, and photo documentation of maintenance activities and construction BMPs (Section 2 and Appendix C);
- Status of mitigation for each facility, such as proof of mitigation credit purchase or status of permittee-responsible mitigation (Section 3, Table 11);
- An updated master list of all facilities in the Municipal Waterways Maintenance Plan, including facility status and maintenance history (Appendix B);
- Monitoring activities, and monitors (Section 2);
- A description of maintenance delays encountered or anticipated that may affect the schedule (Section 2); and
- A description of each incident of noncompliance during the annual monitoring period, its cause, and corrective action taken (not applicable for FY 2022).

California Department of Fish and Wildlife (CDFW) 1602 Agreement (SAA; No.1600-2019-0226-R5)

- Maintenance that was performed at each facility, including the type and area of impact (Section 2);
- Start and end dates of project activities for each facility (Section 2);
- Photo documentation (Appendix C); and
- Master table of all facilities included in the MWMP including facility status and history of maintenance (Appendix B).

California Coastal Commission (CCC) - Coastal Development Permit (Nos. 6-20-0356 and A-6-SAN-20-0029)

- Annual Report not specified as required by the permit. SWD provides the report to the CCC as a courtesy.

US Army Corps of Engineers (USACE) 404 Regional General Permit (RGP 102; No. SPL-2018-00652)

- Start and end dates of project activities for each facility (Section 2);
- Permanent and temporary impact acreage, and mitigation acreage (Section 2);
- List of projects inspected for compliance (not applicable for FY 2022);
- Photo documentation (Appendix C); and
- Master table of facilities that includes status and history of maintenance (Appendix B).

US Fish and Wildlife Services (USFWS) Informal Section 7 Consultation (FWS-SDG-20B0083-2111395)

- Document activities that were conducted in the previous year (Section 2); and
- Confirm authorized impacts were not exceeded (Section 2).

2.0 Routine and Emergency Maintenance Activities (FY 2022)

Under the MWMP, SWD identifies and prioritizes routine channel maintenance work for the upcoming fiscal year that considers, as a primary objective, the ability of each facility to meet SWD's flood risk management goals. Each fiscal year, a list of priority channels is compiled for consideration. In prioritizing the channels for maintenance, SWD also considers environmental resource impacts and the availability of mitigation, relevant water quality regulations and pollutant priorities in each watershed, public input, and its resource constraints. Once the priority list has been finalized, SWD prepares detailed Maintenance Plans and evaluates those plans to determine conformance with the MWMP EIR and regulatory permits through a streamlined review procedure developed for the MWMP. This includes the Substantial Conformance Review (SCR) process established by the City and the Coastal Commission, as well as the notification procedure necessary for resource agency review. Table 7 of the MWMP and Table 2.2 of the EIR identified as "DSD Subsequent MWMP Process Flow Chart" establishes the City's SCR review process. The Coastal Commission's review process for MWMP project-level activities is through the SCR process, however the process for program-level activities can vary.

The process of prioritization, Maintenance Plan preparation and impacts analysis, SCR review, and notifications was completed for all of the Routine Maintenance projects listed in Table 1 below and will be initiated for those projects listed in Section 4 Table 13 for the FY 2023 Annual Work Plan. Emergency projects listed have either completed the notification and permit review phase or are in process for After-the-Fact (ATF) permits. A summary of all maintenance completed for Routine and Emergency maintenance including vegetation impacts and mitigation for facilities maintained during FY 2022 is included in Table 1 below. More specific details about each facility maintained are included in Section 2.1 through 2.9. Figure 1 in Appendix A depicts an overview of the location of these facilities and Figure 2 shows associated mitigation sites.

A Master Stormwater Facility and Mitigation List reflecting facilities that have been maintained and impacts mitigated in FY 2022 under the MWMP is included in Appendix B.

None of the facilities maintained in FY 2022 were required to be inspected by the USACE or any other regulatory agency for compliance. Each project was monitored by qualified staff and all activities were compliant with all environmental permits; no remedial actions were necessary.

Table 1: MWMP Facilities Maintenance and Associated Mitigation for Fiscal Year 2022

Facility Number	Facility Segment Name	Authorizations	Maintenance Start and End Date	Jurisdiction ¹	Impact (acres) ²	Mitigation ³
2-03-000 2-03-002	Roselle 1 Roselle 2 (Routine)	City – SDP 2392210, EIR #616992 (SCR PTS #692644, approval #2555534) CCC – CDP 6-20-0356 (SCR approved 7/26/2021) USACE – 404 RGP 102 (SPL-2018-00652), RGP 102 Verification # (SPL-2021-00405) RWQCB – 401 (R9-2021-0115) (Authorization received 7/28/2021) CDFW – SAA No. 1600-2019-0226-R5	9/16/21 to 10/5/21	(Roselle 1) USACE/RWQCB/CDFW /CCC/City (Roselle 2) USACE/RWQCB/CDFW /CCC/City (Roselle 2) CDFW/CCC/City	0.16 3.31 0.45	<u>Roselle 1</u> previously mitigated (15.04 acres at El Cuervo Wetland Mitigation Area and 0.64 acres at Famosa Slough Off-Site Salt Marsh Mitigation) <u>Roselle 2</u> previously mitigated (1.91 acres at El Cuervo del Sur Phase I and 5.53 acres at Los Peñasquitos Canyon Enhancement- Phase I)
Total Jurisdictional Impacts					3.92	
2-03-100	Flintkote 1 (Routine)	City – SDP 2392210, EIR #616992 (SCR PTS #692643, approval #2555488) CCC – CDP 6-20-0356 (SCR approved 7/26/2021) USACE – 404 RGP 102 (SPL-2018-00652), RGP 102 Verification # (SPL-2021-00406-MER) RWQCB – 401 (R9-2021-0115) (Authorization received 7/28/2021) CDFW – SAA No. 1600-2019-0226-R5	9/16/21 to 10/15/21 and 6/25/22	USACE/RWQCB/CDFW /CCC/City CDFW/CCC/City	0.24 0.23	Previously mitigated (1.91 acres at El Cuervo del Sur Phase I and 5.53 acres at Los Peñasquitos Canyon Enhancement- Phase I)
Total Jurisdictional Impacts					0.47	
3-02-101	Pacific Beach Olney-1 (PB-	City – SDP 2392210, EIR #616992 (SCR PTS #696093, approval #2575099)	12/1/21 to 12/10/21	(PB-Olney-1) USACE/RWQCB/CDFW /CCC/City	0.10	Previously mitigated (0.34 acres at El Cuervo del Sur Phase I and 0.96 acres

¹ All impacts to USACE jurisdictional resources were temporary.

² Detailed breakdowns of project impacts to vegetation communities are included in the individual project subsections below. Tier IV habitat impacts are not included in this table.

³ Additional information regarding the status of mitigation for these projects is provided in Section 3, Table 11.

3-02-103	Olney-1) Mission Bay High School (MBHS-1) (Routine)	CCC – CDP 6-20-0356 (SCR approved 9/9/2021) USACE – 404 RGP 102 (SPL-2018-00652), RGP 102 Verification # (SPL-2021-00537- MER) RWQCB – 401 (R9-2021-0115) (Authorization received 10/19/2021) CDFW – SAA No. (1600-2019-0226-R5)		(PB-Olney-1) CDFW/CCC/City	0.14	at Los Peñasquitos Canyon Enhancement- Phase I)
				(MBHS-1) USACE/RWQCB/CDFW /CCC/City	0.12	
				(MBHS-1) CDFW/CCC/City	0.12	
Total Jurisdictional Impacts					0.48	
4-07-021	Alvarado 1 (Routine)	City – SDP 2392210, EIR #616992 (SCR PTS #695751, approval #2574179) USACE – 404 RGP 102 (SPL-2018-00652), RGP 102 Verification # (SPL-2021-00562- MER) RWQCB – 401 (R9-2021-0115) (Authorization received 10/19/2021) CDFW – SAA No. (1600-2019-0226-R5)	1/31/22 to 2/14/22	USACE/RWQCB/CDFW /City	0.56	Previously mitigated (3.91 acres at Stadium Mitigation Site)
				CDFW/City	0.04	
Total Jurisdictional Impacts					0.60	
5-04-004 5-04-006	National 1 National 2 (Routine)	City – SDP 2392210, EIR #616992 (SCR PTS #694074, approval #2569168) USACE – 404 RGP 102 (SPL-2018-00652), RGP 102 Verification # (SPL-2021-00407- MER) RWQCB – 401 (R9-2021-0115) (Authorization received 8/16/2021) CDFW – SAA No. (1600-2019-0226-R5)	10/21/21 to 1/17/22	(National 1) USACE/RWQCB/CDFW /City	0.604	Previously mitigated (2.44 acres at Stadium Mitigation Site and 4.12 acres at RWQCB Conceptual Wetland Mitigation Plan for 2015-2016 Emergency Channel Maintenance sites)
			(National 2) USACE/RWQCB/CDFW /City	3.40		
Total Jurisdictional Impacts					4.004	

2-01-122	Industrial 2 (Emergency)	City- Emergency SDP No. 2583445 (ATF SCR PRJ #1056838, approval # 1056838) CCC – CDP 6-20-0356 (ATF SCR approved 3/14/2022) USACE – 404 RGP 63 Verification # (SPL-2021-00639) RWQCB- 401 RGP 63 enrolled on 10/12/2021 CDFW- 1602 (Emergency Notification, EPIMS-SDO-24472-R5)	10/4/21 to 10/28/21	USACE/RWQCB/CDFW CCC/City	0.08	Previously mitigated (0.05 acres at El Cuervo del Sur Phase I and 0.15 acres at Los Peñasquitos Canyon Enhancement- Phase I) with 0.06 acres of additional mitigation assigned at El Cuervo del Sur Phase II.
Total Jurisdictional Impacts					0.08	
3-04-055	Chateau 1 (Paola) (Emergency)	City- Emergency SDP No. 3133033 (ATF SCR PRJ-#1070437 in review) USACE – none required (SPL-2021-00554-MER) RWQCB- none required CDFW- 1602 (Emergency Notification, EPIMS-SDO-24561-R5)	10/7/21	USACE/RWQCB/CDFW /City	0.16	Mitigation not required, as described in section 2.7 below.
Total Jurisdictional Impacts					0.16	
4-03-101	Camino del Arroyo 1	City- Emergency SDP No. 3133027 (ATF SCR PRJ-#1071229 in review) USACE – 404 RGP 63 Verification # (SPL-2021-00639) RWQCB- 401 RGP 63 enrolled on 1/7/2022 CDFW- 1602 (Emergency Notification, EPIMS-SDO-26355-R5)	12/11/21 to 2/28/22	(Camino del Arroyo 1) USACE/RWQCB/CDFW /City	0.37	1.40 acres of mitigation credits have been purchased and allocated at the Stadium Mitigation Site.
4-03-103	Camino del Rio 1 (Emergency)			(Camino del Rio 1) USACE/RWQCB/CDFW /City	0.70	
Total Jurisdictional Impacts					1.07	

6-01-100	Smuggler's Gulch 1 <i>(Emergency)</i>	City- Emergency SDP No. 313957 (ATF SCR PRJ #1067923 in review) CCC – CDP 6-20-0356 (ATF SCR approved 9/2/2022) USACE – 404 RGP 102 (SPL-2009-00719-RRS) and prior approvals cover activity RWQCB – 401 WQC (R9-2016-0228-0115) and prior approvals cover activity CDFW – SAA No. (1600-2019-0226-R5) and prior approvals cover activity	12/23/21 and 1/04/22	USACE/RWQCB/CDFW /CCC/City	0.10	Previously mitigated (11.02 acres at Tijuana River Emergency Wetland Mitigation Project site and 8.62 acres at Tijuana River Valley Enhancement Project: In-Channel and Out-of-Channel)
Total Jurisdictional Impacts					0.10	

2.1 Roselle 1 & 2 (2-03-000 & 2-03-002) - Routine Channel Maintenance Project

Routine maintenance was initiated at Roselle 1 (2-03-000), an earthen channel, and Roselle 2 (2-03-002), a concrete-lined channel, to remove accumulated sediment, vegetation, and debris to reduce flood risk and to ensure the long-term reliability of City infrastructure. Roselle 1 extends from approximately 10920 Roselle Street toward Los Peñasquitos Lagoon and is bordered by the Sorrento Valley Train Station on the northeast. Roselle 2 extends northwest from approximately 10637 Roselle Street toward the upstream end of Roselle 1. Both segments connect and parallel commercial office buildings that are located southwest along Roselle Street in the Torrey Pines Community Planning Area. The channels are within the Coastal Overlay Zone (COZ) but outside of the City's Multi-Habitat Planning Area (MHPA).

Maintenance started on September 16, 2021 and ended on October 5th in conformance with the MWMP Facility Maintenance Plan (FMP) and the approvals listed in Table 1 above. Previous maintenance was authorized as follows: Roselle 1 by the 2011 MMP PEIR No. 42891, CDP 6-99-101, SDP 2034245 (2017 Addendum), USACE RGP 63 SPL-2016-00198-RAG, RWQCB WDR Order No. 96-32 401 Cert No. 995007000-BAH (covered under USACE RGP 63 SPL-2010-01177-MBS) and R9-2013-0116, and CDFW SAA No. 5-265-97 and 1600-2006-0183-R5, and Roselle 2 by the 2011 MMP PEIR No. 42891, City Emergency CDP 818358, Master CDP A-6-NOC11-086, SDP 2034245 (2017 Addendum), USACE (RGP 63 SPL-2016-00198-RAG and NWP 33 SPL-2013-00432-MBS), RWQCB 401 (Certs: R9-2013-0116, R9-069C-062 (one-time event), 995007000-BAH (covered under USACE RGP 63 SPL-2010-01177-MBS)), CDFW (SAA 1600-2013-0120-R5, Notification 2011-0002-R5, SAA 1600-2006-0183-R5). Mitigation for channel maintenance activities was previously provided at the El Cuervo Wetland Mitigation Area and Famosa Slough Off-Site Salt Marsh Mitigation for Roselle 1, and at the El Cuervo del Sur Phase I and Los Peñasquitos Canyon Enhancement- Phase I site for Roselle 2.

Results of the maintenance impacts totaled 3.92 acres (approx. 2,518 linear feet). A detailed breakdown of impacts to individual vegetation communities is included in Table 2 below. Approximately 3,076.92 cubic yards (4,615.38 tons) of sediment and vegetation was removed from these two segments. Minor concrete repair occurred in Roselle 2 which resulted in impacts to approximately 50 square feet of concrete paneling and the installation of 14 cubic yards of concrete. All concrete repair occurred within the previously approved maintenance impact footprint to meet as-built conditions.

All activities occurred outside of the avian breeding season. Clearance surveys and daily sweeps were done for the Ridgway's rail (*Rallus obsoletus levipes*) prior to the start of maintenance and rail was not detected. No other special status wildlife species were observed. One sensitive plant species, San Diego sagewort (*Artemisia palmeri*, California Rare Plant Rank [CRPR] 4) Rare Plant Rank [CRPR] 4), was affected by the maintenance. Impacts to this plant are not considered significant because it is not a federally listed species and is not considered rare by the state. Additional mitigation for this impact was not required.

Dudek biologists conducted biological monitoring to ensure compliance throughout the duration of maintenance activities. A Redtail Native American monitor conducted cultural resource monitoring at Roselle 1. No cultural resources were identified or impacted as a result of maintenance activities.

BMPs were implemented in accordance with the project's Water Pollution Control Plan (WPCP).

Photographs showing conditions before and after maintenance in FY 2022 are included in Appendix C. The project was monitored by qualified staff and activities were compliant with approved permits and authorizations; no remedial actions were required.

Table 2: Roselle 1 & 2 Routine Channel Maintenance Impacts

MWMP Mapping Vegetation Community (Holland/ Oberbauer Code)	Jurisdiction or SDBG Tier	Maintenance Impacts (acres)
<i>Roselle-1</i>		
Developed concrete-lined channel (64200)	USACE/RWQCB/CDFW/CCC/City	<0.01
Disturbed wetland (Arundo-dominated) (65100)	USACE/RWQCB/CDFW/CCC/City	0.01
Natural flood channel (64200)	USACE/RWQCB/CDFW/CCC/City	0.05
Riparian forest (southern willow forest) (61320)	USACE/RWQCB/CDFW/CCC/City	0.04
Riparian scrub (southern willow scrub) (63320)	USACE/RWQCB/CDFW/CCC/City	0.06
Subtotal		0.16
<i>Roselle-2</i>		
Developed concrete-lined channel (64200)	USACE/RWQCB/CDFW/CCC/City	3.27
	CDFW/CCC/City	0.45
Natural flood channel (64200)	USACE/RWQCB/CDFW/CCC/City	0.01
Riparian scrub (southern willow scrub) (63320)	USACE/RWQCB/CDFW/CCC/City	0.03
Subtotal		3.76
Total		3.92

2.2 Flintkote 1 (2-03-100) - Routine Channel Maintenance

Routine maintenance was initiated at Flintkote 1 (2-03-100), a concrete-lined ditch, to remove accumulated sediment, vegetation, and debris to reduce flood risk and to ensure the long-term reliability of City infrastructure. The facility is located about 700 feet northwest of the intersection of Tower Road and Flintkote Avenue and south of Soledad Canyon Creek in the Torrey Pines Community Planning Area. It is within the Coastal Overlay Zone (COZ) and the eastern terminus of Flintkote 1 is adjacent to a raised berm and paved roadway located to the east of the ditch. This provides an additional buffer between the ditch from the City's Multi-Habitat Planning Area (MHPA) boundary located about 70-feet to the east.

Maintenance started on September 16, 2021 and initially stopped on October 15th in conformance with the MWMP Facility Maintenance Plan (FMP) and the approvals listed in Table 1 above. Previous maintenance was authorized by the 2011 MMP PEIR No. 42891, Master CDP A-6-NOC11-086-A1, SDP 2034245 (2017 Addendum), USACE NWP 33 SPL-2013-00432-MBS, RWQCB 401 Cert No. R9-2013-0116, and CDFW SAA No. 1600-2013-0120-R5. Mitigation for channel maintenance activities was previously provided at the El Cuervo del Sur-Phase I and Los Peñasquitos Canyon Enhancement- Phase I site.

Results of the initial maintenance impacts totaled 0.47 acres (approx. 992 linear feet). A detailed breakdown of impacts to individual vegetation communities is included in Table 3 below. Approximately 108.22 cubic yard (162.33 tons) of sediment and vegetation was removed. Minor concrete repair was performed in two sections within the segment which impacted a total of 26 square feet resulting in the installation of 0.18 cubic yards of concrete. All concrete repair occurred within the previously approved maintenance impact footprint to meet as-built conditions.

The above activities occurred outside of the avian breeding season. Clearance surveys and daily sweeps were completed for the Ridgway's rail prior to the start of maintenance and rail was not detected. No other special status wildlife species were observed. One sensitive plant species, San Diego sagewort (*Artemisia palmeri*), was affected by the maintenance. Impacts to this plant are not considered significant because it is not a federally listed species and is not considered rare by the state. Additional mitigation for this impact was not required.

Dudek biologists conducted biological monitoring to ensure compliance throughout the duration of maintenance activities.

BMPs were implemented in accordance with the project's Water Pollution Control Plan (WPCP) at each maintenance interval.

Maintenance continued at Flintkote on June 25, 2022 because sediment collected over the interim affecting the annual hydrologic goal established for this ditch. A total of 13.25 tons of additional material was removed on this date. While this activity did occur within the avian breeding season (January 15th - September 15th), it was confirmed by a Dudek biologist that no suitable habitat existed onsite. As a result, the biologist determined that there was a low potential for Ridgway's rail to occur and identified that a focused survey was not necessary.

In addition, focused protocol surveys for least Bell's vireo were conducted in 2021 for this facility and the negative results were included in a report dated August 10, 2021 that was prepared and submitted by

Dudek to the U.S. Fish and Wildlife Service (USFWS). Since least Bell’s vireo (*Vireo bellii pusillus*) and Ridgway’s rail habitat overlapped at this location during the 2021 focused survey, it was also noted that Ridgway’s rail was not detected during the survey passes completed at that time. The focused protocol survey is considered to be valid for 24 months and it covered the continued maintenance activities performed on June 25th. A 500-foot radius survey for Ridgway’s rail and other nesting avian species (including raptors) was also completed on June 23, 2022 prior to the start of work. The results of the survey were negative. A clearance survey and sweep for Ridgway’s rail was still completed prior to the start of maintenance and Ridgway’s rail was not detected.

Suitable habitat for coastal California gnatcatcher (*Polioptila californica*) exists within the MHPA that is located further southwest of Flintkote 1’s westernmost terminus. Noise monitoring was implemented by the biologist at the edge of habitat during work to ensure that noise levels did not exceed 60 dB(A) or remained within the ambient noise levels. The biologist confirmed that noise levels were below allowable thresholds during maintenance activities. No additional mitigation measures for noise were required.

Photographs showing conditions before and after maintenance in FY 2022 are included in Appendix C. The project was monitored by qualified staff and activities were compliant with approved permits and authorizations; no remedial actions were required.

Table 3: Flintkote 1 Routine Channel Maintenance Impacts

MWMP Mapping Vegetation Community (Holland/ Oberbauer Code)	Jurisdiction or SDBG Tier	Maintenance Impacts (acres)
Developed concrete- lined channel (64200)	USACE/RWQCB/CDFW/CCC/City	0.17
	CDFW/CCC/City	0.23
Freshwater Marsh (concrete lined)	USACE/RWQCB/CDFW/CCC/City	0.07
Total		0.47

2.3 Pacific Beach-Olney 1 (PB Olney-1) (3-02-101) and Mission Bay High School 1 (MBHS-1) (3-02-103) - Routine Channel Maintenance

Routine maintenance was initiated at Pacific Beach-Olney 1 (PB-Olney-1) (3-02-101), an earthen channel, and Mission Bay High School (MBHS-1) (3-02-103), a concrete-lined ditch, to remove accumulated sediment, vegetation, and debris to reduce flood risk and to ensure the long-term reliability of City infrastructure. Both segments connect and are located south of Grand Avenue in the Pacific Beach Community Planning Area. PB-Olney-1 parallels Pacific Beach Drive east of Olney Street while MBHS-1 is situated west of Mission Bay High School to the east of Ladd Street. The facilities are located within the Coastal Overlay Zone (COZ) and are not within the City's Multi-Habitat Planning Area (MHPA). Only the western terminus of PB-Olney-1 is directly adjacent the MHPA boundary line which a small portion of the MHPA extends over the improved and paved Pacific Beach Drive right of way.

Maintenance started on December 1, 2021 and ended on December 10th in conformance with the MWMP Facility Maintenance Plan (FMP) and the approvals listed in Table 1 above. Previous maintenance was authorized by the 2011 MMP PEIR No. 42891, Master CDP A-6-NOC11-086-A1, SDP 2034245 (2017 Addendum), USACE NWP 33 SPL-2014-00417-MBS, RWQCB 401 Cert No. R9-2014-0077, and CDFW automatic approval. Mitigation for channel maintenance activities was previously provided at El Cuervo del Sur Phase I and Los Peñasquitos Canyon Enhancement- Phase I sites.

Results of the maintenance impacts totaled 0.24 acres (approx. 1,068 linear feet) within PB-Olney-1 and 0.24 acres (approx. 917 linear feet) within MBHS-1. A detailed breakdown of impacts to individual vegetation communities is included in Table 4 below. Approximately 339.1 cubic yards (309 tons) of sediment and vegetation were removed from PB-Olney-1 and MBHS-1. Minor concrete repair was performed for three sections of MBHS 1 which impacted approximately 111 square feet of paneling and resulted in the installation of 1.39 cubic yards of concrete. All concrete repair occurred within the previously approved maintenance impact footprint to meet as-built conditions.

All activities occurred outside of the avian breeding season. Clearance surveys and daily sweeps were completed for the Ridgway's rail prior to the start of maintenance and rail was not detected. No other special-status wildlife species were observed.

Noise monitoring was done to ensure equipment noise did not impact the adjacent residences. It was determined that noise levels during maintenance averaged approximately 60.74 A-weighted decibels (dB), which was below the threshold of a 75 (dB) average over a 12-hour work period. No additional noise mitigation was required.

Dudek/Rocks biologists conducted biological monitoring to ensure compliance throughout the duration of maintenance activities.

BMPs were implemented in accordance with the project's Water Pollution Control Plan (WPCP).

Photographs showing conditions before and after maintenance in FY 2022 are included in Appendix C. The project was monitored by qualified staff and activities were compliant with approved permits and authorizations; no remedial actions were required.

Table 4: Pacific Beach-Olney-1 (PB Olney-1) and Mission Bay High School 1 (MBHS-1) Routine Maintenance Impacts

MWMP Mapping Vegetation Community (Holland/ Oberbauer Code)	Jurisdiction or SDBG Tier	Maintenance Impacts (acres)
<i>PB Olney-1</i>		
Disturbed Freshwater Marsh (52400)	USACE/RWQCB/CDFW/CCC/City	0.04
Ornamental Plantings (64200)	USACE/RWQCB/CDFW/CCC/City	0.05
	CDFW/CCC/City	0.08
Natural Flood Channel (64200)	USACE/RWQCB/CDFW/CCC/City	0.01
	CDFW/CCC/City	0.02
Disturbed Habitat	CDFW/CCC/City	0.04
Subtotal		0.24
<i>MBHS-1</i>		
Disturbed Freshwater Marsh (concrete-lined) (52400)	USACE/RWQCB/CDFW/CCC/City	0.05
Developed Concrete-lined Channel (64200)	USACE/RWQCB/CDFW/CCC/City	0.07
	CDFW/CCC/City	0.12
Subtotal		0.24
Total		0.48

2.4 Alvarado 1 (4-07-021) - Routine Channel Maintenance

Routine maintenance was initiated at Alvarado 1 (4-07-021), an earthen bottom channel with a concrete right bank and an earthen left bank, to remove accumulated sediment, vegetation, and debris to reduce flood risk and to ensure the long-term reliability of City infrastructure. Alvarado 1 is located roughly 0.38 miles southeast of the College Avenue exit on the Interstate-8 and extends from the downstream end of the Alvarado 2 segment to 15 feet north of the sewer lateral over the channel on the 6300 block of Alvarado Court. Only a small, less than 75-foot long, section of Alvarado 1 parallels and slightly overlaps with the City's Multi-Habitat Planning Area (MHPA) boundary. The facility is not located within the Coastal Overlay Zone (COZ) and is in the College Area Community Plan area.

Maintenance started on January 31, 2022 and ended on February 14th in conformance with the MWMP Facility Maintenance Plan (FMP) and the approvals listed in Table 1 above. Previous maintenance was authorized by the 2011 MMP PEIR No. 42891, SDP 2034245 (2017 Addendum), USACE NWP 18/31/33 SPL-2015-00423-MBT, RWQCB 401 Cert No. R9-2015-0102, and CDFW SAA No. 1600-2015-0107-R5. Mitigation for channel maintenance activities was previously provided at the Stadium Mitigation Site.

Results of the maintenance impacts totaled 0.60 acre (1,108 linear feet). A detailed breakdown of impacts to individual vegetation communities is included in Table 5 below. Approximately 983.28 cubic yards (1,353.14 tons) of sediment and vegetation was removed. Minor concrete repair and patching was performed on two sections of the channel which resulted in the installation of approximately 0.45 cubic yards of concrete. All concrete repair occurred within the previously approved maintenance impact footprint to meet as-built conditions.

Activities did occur within the raptor breeding season (January 15th-August 31st) and a pre-maintenance nesting survey was completed on January 26, 2022 which determined that no nests were present within the survey area and no nesting activity was observed. Additional mitigation measures were not required. No other special-status wildlife species were detected. As part of the maintenance, invasive plant species e.g. giant reed (*Arundo donax*) and other invasive non-native vegetation were flush cut using hand tools and treated at several locations within and adjacent to the channel work area.

Dudek/Rocks biologists conducted biological monitoring to ensure compliance throughout the duration of maintenance activities.

BMPs were implemented in accordance with the project's Water Pollution Control Plan (WPCP).

Photographs showing conditions before and after maintenance in FY 2022 are included in Appendix C. The project was monitored by qualified staff and activities were compliant with approved permits and authorizations; no remedial actions were required.

Table 5: Alvarado 1 Routine Maintenance Impacts

MWMP Mapping Vegetation Community (Holland/ Oberbauer Code)	Jurisdiction or SDBG Tier	Maintenance Impacts (acres)
Developed concrete-lined channel (64200)	USACE/RWQCB/CDFW/Ci	0.06
	CDFW/City	0.04
Natural Flood Channel (64200)	USACE/RWQCB/CDFW/Ci	0.16
Disturbed Wetland (65100)	USACE/RWQCB/CDFW/Ci	0.02
Freshwater Marsh (52400)	USACE/RWQCB/CDFW/Ci	0.30
Freshwater Marsh (concrete-lined)	USACE/RWQCB/CDFW/Ci	0.02
Ornamental Plantings (11000)	Tier IV	<0.01
Total		0.60

2.5 National 1 & 2 (5-04-004 & 5-04-006) - Routine Channel Maintenance

Routine maintenance was initiated at National 1 (5-04-004), a channel with an earthen bottom with earthen and concrete banks, and National 2 (5-04-006), a concrete-lined channel, to remove accumulated sediment, vegetation, and debris to reduce flood risk and to ensure the long-term reliability of City infrastructure. Both segments connect and are in the Southeastern San Diego Community Planning Area. National 1 is located just northwest of the I-5/I-15 Interchange and extends south from approximately the intersection of Logan Avenue and South Gregory Street to just south of the National Avenue bridge. National 2 extends north to south from approximately the eastern terminus of Durant Street to the intersection of Logan Avenue and South Gregory Street. National 1 and 2 are not located within or adjacent to the City's Multi-Habitat Planning Area (MHPA) or the Coastal Overlay Zone (COZ).

Maintenance started on October 21, 2021 and ended on January 17, 2022 in conformance with the MWMP Facility Maintenance Plan (FMP) and the approvals listed in Table 1 above. Maintenance activities were delayed because of the high tide influence that extended into the channel as well as the large amount of stormwater runoff that occurred as a result of multiple storm events. Previous maintenance was authorized by the 2011 MMP PEIR No. 42891, SDP 2034245 (2017 Addendum), USACE RGP 63 SPL-2016-00887-RAG, RWQCB 63 Verification No. R9-2015-0198:820036:lhonma, and CDFW LSA Emergency Notification submitted 1/2016. Mitigation for channel maintenance activities was previously provided at the Stadium Mitigation Site and the RWQCB Conceptual Wetland Mitigation Plan for 2015-2016 Emergency Channel Maintenance.

Results of the maintenance impacts totaled 4.004 acres (approx. 3,369 linear feet). A detailed breakdown of impacts to individual vegetation communities is included in Table 6 below. Approximately 3,258.44 cubic yards (4,484.11 tons) of sediment and vegetation was removed from the two channel segments. Minor concrete repair was performed on two sections of National 2. One was already noted in the FMP and consisted of an approximate 0.01 acres (30 linear feet) impact area which resulted in the installation of eight (8) cubic yards of concrete. A second section was identified following vegetation and sediment removal, which was below the first damaged section, and resulted in the installation of 23.49 cubic yards of concrete. All concrete repair occurred within the previously approved maintenance impact footprint to meet as-built conditions.

Focused protocol surveys for Ridgway's rail were completed as a discretionary measure. Clearance surveys and daily sweeps were also completed for rail prior to the start of maintenance and rail was not detected. No other special-status wildlife species were observed. Activities primarily occurred outside of the avian breeding season with exception to one day of work on January 17th that overlapped into the raptor's season (January 15th-August 31st). All vegetation clearing occurred before January 15th.

Activities did impact disturbed coastal salt marsh in National 1. This habitat type established itself within the previously permitted and mitigated impact footprint. Since mitigation was previously provided for prior maintenance activities, additional mitigation was not required in compliance with the approved MWMP/EIR's one-time mitigation approach for permanent impacts associated with routine maintenance.

As part of maintenance, invasive plant species e.g. giant reed and other invasive non-native vegetation were flush cut using hand tools and treated at several locations within and adjacent to the work area.

Dudek/Rocks biologists conducted biological monitoring to ensure compliance throughout the duration of maintenance activities. A Dudek Archaeological monitor and a Red Tail Environmental Native American monitor completed all necessary cultural resources monitoring. No cultural resources were identified or impacted as a result of maintenance activities.

BMPs were implemented in accordance with the project’s Water Pollution Control Plan (WPCP).

Photographs showing conditions before and after maintenance in FY 2022 are included in Appendix C. The project was monitored by qualified staff and activities were compliant with approved permits and authorizations; no remedial actions were required.

Table 6: National 1 & 2 Routine Maintenance Impacts

MWMP Mapping Vegetation Community (Holland/ Oberbauer Code)	Jurisdiction or SDBG Tier	Maintenance Impacts (acres)
<i>National-1</i>		
Disturbed Coastal Salt Marsh (52100)	USACE/RWQCB/CDFW/City	0.004
Disturbed Wetland (Arundo-dominated) (65100)	USACE/RWQCB/CDFW/City	0.02
Natural Flood Channel (64200)	USACE/RWQCB/CDFW/City	0.58
Subtotal		0.604
<i>National 2</i>		
Developed concrete-lined channel (62400)	USACE/RWQCB/CDFW/City	1.81
	CDFW/City	1.59
Subtotal		3.40
Total		4.004

2.6 Industrial 2 (2-01-122) - Emergency Channel Maintenance

Emergency removal of accumulated sediment, vegetation, and debris was initiated for Industrial 2 (2-01-122) in order to provide public safety and protection of property from an imminent flood risk. Industrial 2 is a concrete-lined channel located 350 feet northeast of the intersection of Industrial Court and Sorrento Valley Road and is an Unnamed Tributary to Los Peñasquitos Creek in the Torrey Pines Community Planning Area. The facility is located within the Coastal Overlay Zone (COZ) and the western terminus of Industrial 2 is separated by paved and developed roadway from the City's Multi-Habitat Planning Area (MHPA), which is located about 150-feet to the west.

On the evening of October 4, 2021, emergency actions were deemed necessary to alleviate an imminent threat of flooding to adjacent businesses near Industrial 2. This was due to an early, unexpected and intense storm that was forecast to produce approximately 0.25 inches of rain. A large mass of vegetation and sediment was blocking the channel and inlets, causing stormwater flow to backup and overflow onto the adjacent property. Emergency work was completed in conformance with the approved MWMP Facility Maintenance Plan (FMP) for this segment as well as with the emergency approvals, notifications, and after the fact permits that are listed in Table 1 above. Previous maintenance was authorized by the 2011 MMP PEIR No. 42891, Emergency CDP 784126, SDP 2034245 (2017 Addendum), USACE NWP 43 (non-notification), RWQCB 401 Cert No. 10C-052, and CDFW LSA Emergency Notification No. 1600-2010-0193R5. Mitigation for channel maintenance activities was previously provided at the El Cuervo del Sur Phase I and Los Peñasquitos Canyon Enhancement- Phase I sites with added required mitigation allocated at El Cuervo del Sur Phase II.

Emergency work was completed on October 28th, which resulted in impacts totaling 0.08 acre (350 linear feet). Temporary impacts to 0.81 acres to Tier IV habitat occurred for access and staging. This was the minimum necessary to alleviate emergency conditions. A detailed breakdown of impacts to individual vegetation communities is included in Table 7 below. Approximately 280.18 cubic yards (420.27 tons) of sediment and vegetation was removed from the facility. Concrete repair was necessary and resulted in the installation of approximately 215.16 cubic yards of material. All concrete repair occurred within the previously approved maintenance impact footprint to meet as-built conditions.

All work occurred outside of the avian breeding season. Clearance surveys and daily sweeps were done for the Ridgway's rail prior to the start of maintenance and rail was not detected. No other special-status wildlife species were observed. Dudek biologists conducted all necessary biological monitoring to ensure compliance for the work that was performed. A Dudek Archaeologist and monitor, as well as a Red Tail Environmental Native American monitor, completed all necessary cultural resources monitoring. No cultural resources were identified or impacted as a result of maintenance activities.

BMPs were implemented to the maximum extent practicable during work to reduce downstream effects.

Photographs showing conditions before and after maintenance in FY 2022 are included in Appendix C. The project was monitored by qualified staff and activities were compliant with approved permits and authorizations; no remedial actions were required.

Table 7: Industrial 2 Emergency Maintenance Impacts

MWMP Mapping Vegetation Community (Holland/ Oberbauer Code)	Jurisdiction or SDBG Tier	Maintenance Impacts (acres)
Riparian Forest (Southern Willow Forest: Concrete-lined)	USACE/RWQCB/CDFW/City	0.04
Freshwater Marsh (Concrete-lined) (52400)	USACE/RWQCB/CDFW/City	0.02
Developed Concrete-lined Channel (64200)	USACE/RWQCB/CDFW/City	0.02
Subtotal		0.08
Urban/Developed Land (11300)	Tier IV	0.81
Subtotal		0.81
Total		0.89

2.7 Chateau 1 (Paola) (3-04-055) - Emergency Channel Maintenance

Emergency removal of accumulated sediment, vegetation, and debris was initiated for Chateau 1 (Paola) (3-04-055) in order to provide public safety and protection of property from an imminent flood risk. Chateau 1 (Paola) is a concrete-lined section of the larger Chateau 1 channel and is located northeast of the intersection of Chateau Drive and Paola Way within the Clairemont Mesa Community Planning Area. The facility is not located within or adjacent to the City's Multi-Habitat Planning Area (MHPA) and is outside of the Coastal Overlay Zone (COZ).

Emergency work was mostly completed in one day on October 7, 2021, when emergency actions were determined to be necessary to alleviate the potential for flooding and property damage at 4411 Paola Way. Adjacent residents reported the potential of flooding from an upcoming weather event that was forecast to produce approximately 0.34 inches of rain. Standing water and a large mass of vegetation and sediment in the channel, along with other dense vegetation upstream was determined to have a high potential to dislodge and plug the culvert. Emergency work was completed in conformance with the approved MWMP Facility Maintenance Plan (FMP) for this segment as well as with the emergency approvals, notifications, and upon completion of the after the fact permits that are listed in Table 1 above. Previous maintenance was authorized by 2011 MMP PEIR No. 42891, SDP 2034245 (2017 Addendum), and CDFW SAA No. 1600-2011-0361-R5. Mitigation was not required as described in Section 5.3.5 of the MWMP EIR for this activity because impacts occurred to resources that were not considered sensitive and did not require mitigation.

Overall, impacts totaled 0.16 acre (360 linear feet) to developed concrete-lined channel and disturbed wetland (palm-dominated; concrete-lined) as well as 0.033 acres of temporary impacts to Tier IV habitat for access and staging. All impacts occurred to non-sensitive resources. This was the minimum necessary to alleviate emergency conditions. A detailed breakdown of impacts to individual vegetation communities is included in Table 8 below. Approximately 22.51 tons of sediment and vegetation was removed from the facility. In addition, minor concrete repair of a 3 by 4-foot section occurred on November 11th, which resulted in the installation of approximately four (4) cubic yards of concrete material. The delay to complete concrete work was due to the limited staff resources available at the time. All concrete repair occurred within the previously approved maintenance impact footprint to meet as-built conditions.

All work occurred outside of the avian breeding season. A Dudek biologist and compliance specialist conducted biological monitoring to ensure compliance throughout the duration of maintenance activities.

BMPs were implemented to the maximum extent practicable during work to reduce downstream effects.

Photographs showing conditions before and after maintenance in FY 2022 are included in Appendix C. The project was monitored by qualified staff and activities were compliant with approved permits and authorizations; no remedial actions were required.

Table 8: Chateau1 (Paola) Emergency Maintenance Impacts

MWMP Mapping Vegetation Community (Holland/ Oberbauer Code)	Jurisdiction or SDBG Tier	Maintenance Impacts (acres)
Developed concrete-lined channel (64200)	USACE/RWQCB/CDFW/City	0.12
Disturbed Wetland (Palm dominated concrete-lined) (52400)	USACE/RWQCB/CDFW/City	0.04
Subtotal		0.16
Ornamental Plantings (11000)	Tier IV	0.03
Urban/Developed Land (11300)	Tier IV	0.003
Subtotal		0.033
Total		0.193

2.8 Camino del Arroyo 1 (4-03-101) and Camino del Rio 1 (4-03-103) - Emergency Channel Maintenance

Emergency removal of accumulated sediment, vegetation, and debris was initiated for Camino del Arroyo 1 (4-03-101) and Camino del Rio 1 (4-03-103) in order to provide public safety and protection of property from an imminent flood risk. Camino del Arroyo 1 and Camino del Rio 1 connect and are both concrete-lined channels located north of Interstate 8, east of Camino del Arroyo and south of Camino del Rio in the Mission Valley Community Planning Area. The facilities discharge directly into the San Diego River through a box culvert running below Camino de La Reina and are not located within the City's Multi-Habitat Planning Area (MHPA) or the Coastal Overlay Zone (COZ).

On December 10, 2021 with work beginning on December 11th, emergency actions were determined to be necessary due to an intense storm that was forecast to produce approximately 1.5 inches of rain between December 13th and December 15th. The storm was expected to add three to four feet of water level rise within the nearby San Diego River. Reports of recent flooding at adjacent businesses to the Camino del Arroyo 1 and Camino del Rio 1 segments prompted a site visit that verified significantly more dense vegetation growth than what was observed during an inspection completed in March 2021. Emergency work was completed in conformance with the approved MWMP Facility Maintenance Plan (FMP) for these segments as well as with the emergency approvals, notifications, and after the fact permits that are listed in Table 1 above. Previous maintenance was authorized by 2011 MMP PEIR No. 42891 and SDP 2034245 (2017 Addendum). Compensatory mitigation for this emergency has been purchased and assigned at the Stadium Mitigation Site.

Work was completed on February 28, 2022, with project delays being attributed to storm events as well as limited staff availability that was needed to complete minor concrete repairs. Overall, the impacts resulting from the emergency work totaled 1.07 acres (1,818 linear feet) as well as 0.33 acres of temporary impacts to Tier IV habitat for access and staging. This was the minimum necessary to alleviate emergency conditions. A detailed breakdown of impacts to individual vegetation communities is included in Table 9 below. Approximately 1,567.4 cubic yards (2,066.03 tons) of sediment, vegetation, and debris were removed from both facilities. Minor concrete repair was completed to 32 areas within the channel that resulted in the installation of approximately 40 cubic yards of material. All concrete repair occurred within the previously approved maintenance impact footprint to meet as-built conditions.

Work did extend into the start of the avian breeding season (January 15th – September 15th due to the amount of time it took to coordinate the concrete repairs. However, all vegetation and suitable habitat for nesting had been removed from the channels prior to January 15th. No nesting activity was observed within or adjacent to either channel segment prior to the start of work. Dudek biologists conducted all necessary biological monitoring to ensure compliance for the work that was performed.

BMPs were implemented to the maximum extent practicable during work to reduce downstream effects.

Photographs showing conditions before and after maintenance in FY 2022 are included in Appendix C. The project was monitored by qualified staff and activities were compliant with approved permits and authorizations; no remedial actions were required.

Table 9: Camino del Arroyo 1 and Camino del Rio 1 Emergency Maintenance Impacts

MWMP Mapping Vegetation Community (Holland/ Oberbauer Code)	Jurisdiction or SDBG Tier	Maintenance Impacts (acres)
<i>Camino del Arroyo-1</i>		
Developed concrete-lined Channel (62400)	USACE/RWQCB/CDFW/City	0.24
Disturbed Wetland (concrete-lined) (11200)	USACE/RWQCB/CDFW/City	0.03
Riparian Scrub (concrete-lined) (63000)	USACE/RWQCB/CDFW/City	0.10
Subtotal		0.37
<i>Camino del Rio-1</i>		
Developed concrete-lined Channel (62400)	USACE/RWQCB/CDFW/City	0.13
Riparian Scrub (concrete-lined) (63000)	USACE/RWQCB/CDFW/City	0.57
Subtotal		0.70
Ornamental Plantings (11000)	Tier IV	0.03
Disturbed Land (11300)	Tier IV	0.23
Urban/Developed (12000)	Tier IV	0.07
Subtotal		0.33
Total		1.40

2.9 Smuggler's Gulch 1 (6-01-100) - Emergency Channel Maintenance

Emergency removal of accumulated sediment, vegetation, and debris was initiated for Smuggler's Gulch 1 (6-01-100) in order to provide public safety and protection of property from an imminent flood risk. Smuggler's Gulch 1 is an earthen channel in the Tijuana River watershed and is located approximately 1,500 feet north of Monument Road which conveys flows downstream within the Smuggler's Gulch channel that leads towards the Pilot Channel. The facility is located entirely within the City's Multi-Habitat Planning Area (MHPA) and the Coastal Overlay Zone (COZ) in the Tijuana River Valley Community Plan.

On December 23, 2021 emergency actions were deemed necessary because a forecasted storm was anticipated to produce approximately 1.5 inches of rain and a large quantity of trash, sediment, and debris was blocking the Disney Bridge triple-culvert that is located within the channel. Prior to the storm event, evidence of recent water overtopping the culvert and washouts along the secondary berms that protect adjacent properties located to the east were observed. Emergency work was completed in conformance with the approved MWMP Facility Maintenance Plan (FMP) for this segment as well as with the Emergency approvals, notifications, and after-the-fact permits that are listed in Table 1 above. Previous maintenance was authorized by 2011 MMP PEIR No. 42891, Master CDP A-6-NOC11-086-A1, SDP 2034245 (2017 Addendum), USACE SPL-2009-00719-RRS, RWQCB 401 Cert No. R9-2016-0028, and CDFW SAA No. 1600-2011-0271-R5. Mitigation for channel maintenance activities was previously provided at the Tijuana River Emergency Wetland Mitigation Project and Tijuana River Valley Enhancement Project sites.

Emergency work was conducted on two separate days, once on December 23rd and again on January 4th, 2022, which resulted in impacts totaling 0.10 acres (200 linear feet) to the natural flood channel. Temporary impacts to 3.38 acres of Tier IV habitat occurred for access and staging. This was the minimum necessary to alleviate emergency conditions. A detailed breakdown of impacts to individual vegetation communities is included in Table 10 below. Approximately 554.15 cubic yards (288.35 tons) of sediment and vegetation, and 32.67 cubic yards (5.88 tons) of trash was removed.

All work occurred outside of the avian breeding season. Clearance surveys and daily sweeps were done for the Ridgway's rail prior to the start of maintenance and rail was not detected. No other special-status wildlife species were observed. Dudek/Balk biologists conducted biological monitoring to ensure compliance throughout the duration of maintenance activities.

BMPs were implemented to the maximum extent practicable during work to reduce downstream effects.

Photographs showing conditions before and after maintenance in FY 2022 are included in Appendix C. The project was monitored by qualified staff and activities were compliant with approved permits and authorizations; no remedial actions were required.

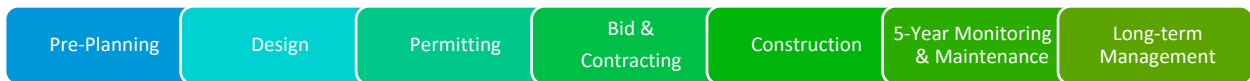
Table 10: Smuggler’s Gulch 1 Emergency Maintenance Impacts

MWMP Mapping Vegetation Community (Holland/ Oberbauer Code)	Jurisdiction or SDBG Tier	Maintenance Impacts (acres)
Natural Flood Channel (64200)	USACE/RWQCB/CDFW/CCC/City	0.10
Subtotal		0.10
Disturbed Land (11300)	Tier IV	2.74
Ornamental Plantings (11000)	Tier IV	0.61
Urban Developed Land (12000)	Tier IV	0.03
Subtotal		3.38
Total		3.48

3.0 Mitigation Projects

In accordance with the MWMP regulatory permits, one-time mitigation is required for significant biological impacts resulting from implementation of the MWMP. Table 11 lists the status of mitigation sites that are associated with FY 2022 MWMP that mitigate for past and future MWMP impacts to biological resources. To help define a site’s status, SWD has divided the mitigation process into seven phases (Diagram 1). These phases may overlap one another, or a project can be in two or three phases at a given time, but in general are used to help describe a mitigation project’s status.

Diagram 1: Mitigation Process



Sections 3.1 – 3.3 provide additional detail regarding the mitigation sites related to FY 2022 channel maintenance activities. Several of these mitigation sites were developed and approved prior to completion of the MWMP. Figure 2 of Appendix A provides the geographic locations of these mitigation sites.

In addition to the mitigation sites that are already assigned to MWMP facilities, SWD is actively developing additional mitigation sites, including some that have been identified as Capital Improvement Program (CIP) projects and are therefore being developed by the Engineering & Capital Projects Department. These future potential mitigation sites may serve as permittee-responsible mitigation for specific prioritized MWMP facilities or advanced-permittee responsible mitigation with credit acreage that may be assigned to MWMP facilities as they are prioritized.

The following provides additional details regarding mitigation projects that are tied to channels reported in Section 2 or where the project status has changed in FY 2022.

Table 11: Mitigation Sites Associated with MWMP Facilities- FY 2022 Status

Mitigation Site	Reviewing Agencies ¹	Status	MWMP Facilities Mitigated/Allocated	MWMP Watershed/Watershed Management Area	Mitigation Site ²
FY 2022 MWMP Maintenance Related Mitigation Sites (See Sections 3.1 – 3.3)					
El Cuervo Wetland Mitigation Area	City/CCC/USACE/RWQCB/CDFW	Long-term Management	Roselle-1	Los Peñasquitos/Peñasquitos	PRM
El Cuervo del Sur Phase I	City/CCC/USACE/RWQCB/CDFW	5-year Monitoring & Maintenance	Roselle-2, Flintkote-1, MBHS-1, PB-Olney-1, Tripp-1, Industrial-1 & 2	Los Peñasquitos / Peñasquitos	PRM
El Cuervo del Sur Phase II	City/CCC/USACE/RWQCB/CDFW	Design & Permitting	Industrial-2 Emergency Maintenance (2021)	Los Peñasquitos / Peñasquitos	APRM
Los Peñasquitos Canyon Enhancement Phase I	City/CCC/USACE/RWQCB/CDFW	Long-term Management	Roselle-2, Flintkote-1, MBHS-1, PB-Olney-1, Tripp-1, Industrial 1 & 2	Los Peñasquitos / Peñasquitos	APRM
Stadium (San Diego River) Wetlands Mitigation	City/USACE/RWQCB/CDFW	5-Year Monitoring & Maintenance	Alvarado-1, National-1, National-2, Camino Del Arroyo 1, Camino del Rio 1	San Diego River/San Diego River	APRM
2015/16 Emergency Mitigation Plan	City/RWQCB	5-Year Monitoring & Maintenance	Washington-1, Washington-2	Pueblo and Sweetwater/ San Diego Bay	PRM
Tijuana River Emergency Channel Maintenance Mitigation (Creation Site)	City/USACE/RWQCB/CDFW	Long-term Management	Pilot-1, Smugglers Gulch-1	Tijuana River/Tijuana River	PRM
Tijuana River Valley In-Channel Enhancement Area and the Out-of-Channel Enhancement Area	City/CCC/USACE/RWQCB/CDFW	Long-term Management	Pilot-1, Smugglers Gulch-1	Tijuana River/Tijuana River	PRM

¹ City= City of San Diego; CCC = California Coastal Commission; USACE = US Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CDFW = California Department of Fish and Wildlife

² PRM = Permittee Responsible Mitigation; APRM = Advanced Permittee Responsible Mitigation; Mitigation Bank = Agency Approved Mitigation Bank

Other MWMP Mitigation Sites (See Section 3.4)					
Sefton Field	City/USACE/ RWQCB/CDFW	Design	Friars & Colusa	San Diego River/San Diego River	APRM
Montongo	City/USACE/ RWQCB/CDFW	Design	TBD	Los Peñasquitos / Peñasquitos	APRM
Pacific Highway	City/USACE/ RWQCB/CDFW	Design	San Diego River Levee Outfalls A and B	San Diego River/San Diego River	APRM
Rancho Jamul Phase IIB	City/USACE/ RWQCB/CDFW	Permitting	TBD	Otay (+Service Areas)/ San Diego Bay	Mitigation Bank
Hollister Quarry	City/CCC/USACE/ RWQCB/CDFW	Permitting	Cedar-1, Cedar-2, Valeta-1, Tocayo-1	Otay/San Diego Bay	APRM
Otay Reed	City/USACE/ RWQCB/CDFW	Permitting	Auburn-1	Otay/San Diego Bay	APRM
Smythe-Bandola Mitigation Site	City/USACE/ RWQCB/CDFW	Permitting	Via Bandola-1, Smythe	Tijuana River/Tijuana River	PRM
Los Peñasquitos Canyon Enhancement Phase II	City/CCC/USACE/ RWQCB/CDFW	Permitting	Mission Bay Drive-1	Los Peñasquitos / Peñasquitos	APRM

3.1 Long-Term Management Mitigation Sites

3.1.1 El Cuervo Wetland Mitigation Area

The El Cuervo Wetland Mitigation Project (El Cuervo) was implemented in 2001 to compensate for jurisdictional impacts associated with the initial and future channel maintenance within the Sorrento Creek earthen maintenance area. The El Cuervo site is located within the Los Peñasquitos Canyon Preserve, approximately 1 mile east of the Interstate 5/805 split and north of Sorrento Valley Boulevard. The site is located near the confluence of Lopez Creek and Los Peñasquitos Creek, just east of the historic El Cuervo Adobe. The mitigation consisted of creation and enhancement of 12.06 acres of riparian habitat. Of this, 9.8 acres was specifically for the Sorrento Creek Maintenance Project implemented in 1997 as noted in the *El Cuervo Wetland Area Final Conceptual Wetland Mitigation and Monitoring Plan Los Peñasquitos Canyon Preserve* (Dudek, March 2000). Installation of the El Cuervo Wetland Mitigation Project was completed on October 4, 2001, at which time the five-year long-term maintenance and monitoring period was initiated. By the end of the fifth year, in October 2006, the project had met its final performance standards, and was subsequently signed-off by permitting regulatory agencies.

3.1.2 Los Peñasquitos Canyon Enhancement (Phase I)

The Los Peñasquitos Canyon Enhancement Project was designed to provide wetland enhancement mitigation for maintenance impacts to channels in the Los Peñasquitos Hydrologic Unit. The site is located within the upper reach of Lopez Canyon Creek to the east of Interstate 805. The mitigation work consisted of removing 8.5 acres of non-native species found within and adjacent to jurisdictional waters in Lopez Canyon, as well as supporting the well-being of native species of plants and animals in order to provide 6.64 acres of mitigation credit for channel maintenance impacts, as described in the *Final Los Peñasquitos Wetland Enhancement Plan* (URS Corporation, February, 2014a).

The Year 5 performance standards were achieved as of August 2020 and documented in the *Final and Year 5 Annual Compensatory Mitigation Monitoring Report for Los Peñasquitos Canyon Preserve Wetland Enhancement Project* (RECON, August 2020) which was submitted to the reviewing agencies listed in Table 11. This site has since been signed-off by the permitting agencies and will remain in long-term maintenance and monitoring. Los Peñasquitos Canyon Preserve Wetland Enhancement Project has an excess of 0.66 acres of advanced permittee responsible wetland enhancement credits approved by the regulatory agencies to utilize for other projects.

The project provides wetlands enhancement mitigation for the following channel maintenance locations:

- Industrial-1
- Industrial-2
- Tripp-1
- Roselle-2
- Flintkote-1
- PB-Olney-1
- MBHS-1

3.1.3 Tijuana River Emergency Channel Maintenance Mitigation (Creation Site)

The Tijuana River Emergency Channel Maintenance Mitigation (Creation Site) project occurred in the early 1990's and resulted in construction of the Pilot Channel. Mitigation for the Tijuana River Emergency Channel Maintenance occurred in the mid-1990's and consisted of the creation of a 13.21-acre site, 9.43 acres of which was wetlands creation to compensate for the construction of the Pilot Channel. The mitigation project was completed in 2001 with sign-off from all applicable environmental regulatory agencies.

As part of the long-term monitoring, on May 23, 2020, Balk Biological assessed the site and verified the mitigation area was still meeting USFWS performance standards. During the site walkthrough, a total of four territories for least Bell's vireo (*Vireo belli pusillus*), a federally endangered bird species, were detected on site. In addition, established vegetation remained consistent with what was observed during the 2013 through 2020 site evaluations, which consists of a mosaic of native riparian and wetland vegetation communities throughout the project area. While the site exhibits natural changes as dictated by field conditions, the location and composition of vegetation communities is substantially consistent with the project design, and the site remains suitable for supporting the continued utilization by least Bell's vireo (Balk Biological, May 2020).

3.1.4 Tijuana River Valley In-Channel Enhancement Area and the Out-of-Channel Enhancement Area

In addition to the creation of wetlands described above, wetland enhancement was completed as additional mitigation for the continued maintenance in the Pilot Channel and Smuggler's Gulch. The wetland enhancement occurred in two locations per the regulatory permits, 4.31-acres Out-of-Channel and 4.31-acres In-Channel, and included removal of three target species - giant reed (*Arundo donax*), castor bean (*Ricinus communis*) and salt cedar (*Tamarix ramosissima*). The Out-of-Channel mitigation area is adjacent to the channel maintenance areas. The mitigation site is within the Tijuana River Valley Regional Park on City and County of San Diego property.

The five-year maintenance and monitoring period for the project was completed in December 2018. At that time, the City obtained sign-off that the project had achieved its 5-year performance standards from the regulatory agencies (USACE, USFWS, RWQCB, CCC and City of San Diego Development Services Department) by May 2019. With the five-year maintenance and monitoring period for the project complete, the project is in its long-term maintenance and management phase.

Balk Biological performed site reviews to confirm continued compliance with performance standards outlined in the project permits on October 16, 2019, February 17, 2020, and May 23, 2020. Established vegetation remains consistent with what was observed during the 2013 through 2019 site evaluations, which consists of a mosaic of native riparian, wetland, and transitional vegetation communities throughout the project area, meeting the success criteria to completely eliminate the three target invasive plants.

3.2 Construction and/or 5-Year Maintenance & Monitoring Mitigation Sites

3.2.1 El Cuervo del Sur (Phase I)

This wetland creation project was designed to establish 2.30 acres of wetlands on a currently non-wetland area within the Los Peñasquitos Canyon Preserve as described in the *Final El Cuervo del Sur Conceptual Wetland Habitat Mitigation and Monitoring Plan* (URS Corporation, February 2014b). The site has been designed in two phases. Phase I has been implemented and is in its fifth year of monitoring and maintenance. As further described in Section 3.3, Phase II and its associated Habitat Maintenance and Monitoring Plan (HMMP) is currently being planned and permitted.

This mitigation project is adjacent to previous City mitigation projects (El Cuervo, El Cuervo Norte) along Los Peñasquitos Creek in the Los Peñasquitos Canyon Preserve. The project involved installation of temporary irrigation, the creation of a wetland area within the floodplain through grading, excavation, and planting with a mix of herbaceous wetland (1.0 acre), riparian scrub (0.94 acre) and riparian transitional species (0.36 acre). Quarterly monitoring and maintenance visits were completed for Year-4 (December 28, 2020 – December 27, 2021) and the site's progress in meeting its success criteria, current site condition photographs, and monitoring data was reported in the *El Cuervo del Sur Phase 1 Wetlands Creation Site Monitoring Year 4 Annual Compensatory Mitigation Monitoring Report* (ESA, March 2022) which was submitted to the reviewing agencies indicated in Table 11 above. As of June 30, 2022, the site is approximately halfway through its fifth year of monitoring. While the Year 4 report indicates that the site did not meet success criteria related to non-native cover (within 6% of target goal) and high risk invasive plants (within 2% of target goal), the City anticipates the site will meet its success criteria and receive final sign off at the conclusion of the five-year maintenance and monitoring period in December 2022.

The project provides wetlands creation mitigation for the following channel maintenance locations:

- Industrial-1
- Industrial-2
- Tripp-1
- Roselle-2
- Flintkote-1
- PB-Olney-1
- MBHS-1

3.2.2 Wetland Mitigation Plan for 2015/16 Emergency Channel Maintenance

This mitigation plan was developed primarily to address mitigation required by the RWQCB and City for multiple emergency maintenance projects in FY 2016. The mitigation is expected to serve as one-time mitigation for future routine maintenance under the MWMP at these facilities. The *Wetland Mitigation Plan for 2015/16 Emergency Channel Maintenance* (Dudek, May 2019) includes re-establishment, rehabilitation, and enhancement activities and consists of four (4) separate mitigation areas: Chollas Creek, South Chollas Creek, Washington, and Paradise Canyon. Enhancement (invasive plant removal and treatment) was

initiated at Washington and a portion of the South Chollas Creek site in FY 2021. Work is expected to continue in FY 2023 and annual monitoring reports will be prepared and submitted to the RWQCB in accordance with the final Wetland Mitigation Plan.

The project provides wetland mitigation for the following channel maintenance locations:

- Washington-2
- National-1
- National-2
- Rolando-2
- Home-1
- Jamacha-1
- Cottonwood-1
- Cottonwood-2
- Parkside-1

3.2.3 Stadium (San Diego River) Wetland Mitigation Project

The City's Stadium (San Diego River) Wetland Mitigation project is an Advanced Permittee Responsible Mitigation (APRM) site located within the floodplain of the San Diego River between I-15 and I-805. The Project was implemented and is managed by the City's Public Utilities Department (PUD) to generate compensatory mitigation credit by providing rehabilitation and enhancement of approximately 57 acres within the San Diego River, San Diego, California. Installation of the project ended on October 20, 2017, and the plant establishment period (PEP) was considered complete on February 23, 2018, thereby initiating the 5-year maintenance and monitoring period. As an APRM, the credit availability is dependent on project milestones as well as meeting performance standards. The first credit release (15%) occurred upon project approval, the second credit release (25%) occurred upon completion of invasive species removal and 120-day PEP, and the third credit release (25%) was approved following attainment of Year One performance standards. There were no credits releases in Year Two; however, additional credits (20%) were released by meeting Year Three performance standards which were approved by the regulatory agencies in 2021. PUD continued to monitor and maintain this site to complete Year Four Monitoring & Maintenance period (February 23, 2021 – February 23, 2022); and began Year Five Monitoring & Maintenance where the remaining credits (15%) will be released upon approval of the Final Monitoring Report and final sign-off expected in March 2023.

SWD has reserved approximately 13 acres of mitigation credits at this site through multiple purchases of credit which have already been allocated for the following past MMP and future MWMP routine and emergency projects:

- Murphy Canyon - *Routine Maintenance*
- Alvarado Creek - *Routine Maintenance*
- San Carlos Creek - *Emergency Maintenance*
- Reservoir Drive - *Emergency Maintenance*
- Auburn Creek - *Routine Maintenance*
- South Chollas Creek - *Routine Maintenance*
- Montezuma - *Routine Maintenance*

- 2015-2016 El Nino Season Emergency Projects (partially satisfied mitigation obligations):
 - Chollas Creek at Rolando - *Emergency Maintenance*
 - Chollas Creek at National - *Emergency Maintenance*
 - Cottonwood Creek - *Emergency Maintenance*
 - Jamacha Channel - *Emergency Maintenance*
 - Washington Channel - *Emergency Maintenance*
- Mission Gorge 3 & 4 - *Routine Maintenance*
- Camino Del Rio 1 - *Emergency Maintenance*
- Camino Del Arroyo 1 - *Emergency Maintenance*

Subsequent maintenance of any of these previously mitigated facilities would likely not require additional mitigation beyond what was previously required and provided since the MWMP allows for one-time mitigation for facilities that have been previously permitted and mitigated.

3.3 Design and/or Permitting Mitigation Sites

3.3.1 El Cuervo del Sur (Phase II)

The El Cuervo del Sur Phase II Mitigation Site (El Cuervo Phase II) is located within the Los Peñasquitos Canyon Preserve. El Cuervo Phase II is intended to establish 1.65 acres of wetland habitat (creation/establishment) within the COZ and the City's MHPA. The 1.65 acres of wetland creation/establishment will be jurisdictional per the City, USACE, RWQCB, CDFW, and CCC. The 1.65 acres is intended to fulfill the City's compensatory wetland creation requirement for the Mission Bay Drive Channel Maintenance Project and the Industrial Channel Project. The remaining acres of mitigation credit will be used for future stormwater channel maintenance projects in conformance with the MWMP.

El Cuervo Phase II is currently in the design and permitting phase. The CCC approved a CDP in January 2020; issuance of the CDP is pending. USACE has provided a No Permit Required Letter and an Approved Jurisdictional Determination (AJD) confirming the project area is non-jurisdictional, and the RWQCB did not require a permit for the project. The City is reviewing the project through the SCR process to verify the project is in conformance with the MWMP. In FY 2023, SWD will pursue a Grading Permit with the City and begin the construction contracting process.

3.4 Other Mitigation Sites

During the current FY 2022 reporting period, the City also pursued and worked on several other mitigation sites with significant status updates now available. The majority of these wetland sites will be Advanced Permittee Responsible Mitigation (APRM) sites whose mitigation will be allocated to past (e.g., Emergency) and future maintenance and repair activities associated with the MWMP. Table 12 below provides a summary of these sites and the progress that has been achieved in FY 2022.

Additional mitigation opportunities and sites have been identified as Capital Improvement Program (CIP) projects and are being developed by the Engineering & Capital Projects (ECP) Department. They include the Jamacha Canyon Stream Rehabilitation, the Los Peñasquitos Lagoon Restoration, the Pacific Beach Drive Storm Drain Improvement Project (Noyes Street), and Chollas Creek Restoration. These future potential

projects may create or have excess mitigation that may serve as permittee-responsible mitigation for specific prioritized MWMP facilities or advanced-permittee responsible mitigation with credit acreage that may be assigned to MWMP facilities as they are prioritized. SWD is coordinating with ECP to ensure that mitigation can be allocated appropriately.

Table 12: Other MWMP Mitigation Sites' FY 2022 Progress

Mitigation Site	Status	Summary
Sefton Field	Design	Draft HMMP is being prepared. Anticipate submitting for pre-application meeting in winter 2022.
Montongo	Design	Draft HMMP is being prepared.
Pacific Highway	Design	Draft HMMP is being prepared. Anticipate submitting for pre-application meeting in winter 2022.
Rancho Jamul Mitigation Bank (Phase IIB)	Permitting	City purchased 3.3 credits at the Rancho Jamul Phase IIB Mitigation in 2015 located in the Otay River watershed/San Diego Bay WMA. The bank is currently in review with the Inter-Agency Review Team (IRT) to prepare the Banking Enabling Instrument (BEI). In FY 2022, the bank manager transferred from Wildlands to RES. SWD continued to coordinate with the new bank manager to receive monthly updates and anticipated credit release schedule to assign to MWMP facilities within identified Service Areas.
Hollister Quarry	Permitting	Prepared and submitted Final HMMP to agencies in December 2021 and the City prepared an updated HMMP in response to agency comments in June 2022. This APRM will provide approximately 2.36-acres of wetland establishment, rehabilitation, and enhancement mitigation within the Otay River Valley Regional Park. This site is partially within the COZ and will provide coastal mitigation. It is anticipated that this site will mitigate for the past 2016 emergency at Nestor Creek (Cedar-1, Cedar-2), Tocayo-1, Valeta-1, as well as future maintenance and repair impacts that may occur in the Otay watershed/San Diego Bay Watershed Management Area and identified Service Areas.
Otay Reed	Permitting	Final HMMP submitted to agencies in August 2022. Includes approval of MHPA Boundary Line Adjustment to add 1.55-acres into the City MHPA. This APRM will provide approximately 5.03-acres of wetland establishment, rehabilitation, and enhancement mitigation in Otay River Valley Regional Park. It is anticipated that this site will mitigate for the past 2016 emergency at Auburn Creek (Auburn-1) as well as future maintenance and repair impacts that may occur in the Otay watershed/San Diego Bay Watershed Management Area and other identified Service Areas.
Smythe-Bandola Mitigation Site	Permitting	The HMMP underwent revision in 2021 to respond to agency comments and was approved by USACE and RWQCB in FY 2021. The City identified that a Coastal Development Permit (CDP) is required prior to construction and is currently processing an application for a City-issued CDP, which would then allow SWD to bid the project and retain a contractor to initiate construction.

<p>Los Peñasquitos Canyon Enhancement Phase II</p>	<p>Permitting</p>	<p>Los Peñasquitos Canyon Enhancement Phase II is currently in the permitting phase. The CCC approved a Coastal Development Permit (CDP) in January 2020; issuance of the CDP is pending. The USACE has provided a No Permit Required Letter and an Approved Jurisdictional Determination, and the RWQCB did not require a permit for the project. The project's SCR was completed in July 2022, demonstrating that the project conforms with the MWMP. SWD will solicit bids for a construction contract upon receiving the final permits for the project. The project is anticipated to be implemented from Fall/Winter 2023 to Spring 2024.</p>
--	-------------------	--

4.0 Conclusions and Future Projects

Over the FY 2022 maintenance period, routine maintenance was completed at five (5) channel facilities and emergency maintenance at four (4). These projects allowed for removal of accumulated trash, sediment, and debris which restored conveyance capacity and reduced flood risk while also maintaining the long-term reliability of the City’s stormwater infrastructure. SWD is committed to provide required compensatory mitigation for wetland and upland impacts associated with its ongoing maintenance activities that affect sensitive biological resources. Section 3 identifies eight (8) approved sites that SWD used to mitigate for its FY 2022 impacts. Additional sites are being implemented to provide creation (establishment), restoration (re-establishment or rehabilitation), enhancement, and acquisition mitigation acreages/credits for future SWD activities. It is important to note that the one-time mitigation approach approved as part of the MWMP, its certified EIR, and by the agencies will allow for subsequent maintenance to occur within a facility that has been previously permitted and mitigated without requiring additional mitigation if activities remain within the approved project impact footprint. Lastly, all maintenance activities identified in this report were conducted in compliance with the MWMP and all associated regulatory permits, and it is the intent of any future activities to achieve similar compliance.

Table 13 lists the facilities that SWD expects to maintain in FY 2023 (July 1, 2022 – June 30, 2023).

Table 13: Annual Work Plan (July 1, 2022 - June 30, 2023)

WMA/Watershed	Facility Group Name	Facility No.	Segment Name and Number	Coastal Zone
San Dieguito River/San Dieguito	Green Valley Creek – Pomerado	1-04-033	Pomerado 2	No
Los Peñasquitos/Peñasquitos	Los Peñasquitos Lagoon - Tripp	2-01-130	Tripp 1	Yes
San Diego River/San Diego River	Alvarado Canyon Creek – Mission Gorge	*4-07-002	Mission Gorge 1	No
		4-07-004	Mission Gorge 2	No
San Diego Bay/Pueblo	Auburn Creek – Home	5-04-224	Home 2	No

* Covered under the Informal Section 7 Consultation Biological Opinion enclosure table in the “not likely to adversely affect” category.

5.0 References

- City of San Diego. 2012. City Council Policy 800-04. July 20, 2012.
- City of San Diego. 2020a. Municipal Waterways Maintenance Plan. Prepared by the Transportation & Storm Water Department, Storm Water Division- Operations & Maintenance Section. March 2020
- City of San Diego. 2020b. Final Environmental Impact Report for the Municipal Waterways Maintenance Plan, San Diego, California. SCH No. 2017071022. Project No. 616992. Prepared by Dudek for The City of San Diego – Planning Department, Environment and Mobility Planning Division. March 2020.
- Dudek. 2000. El Cuervo Wetland Area Final Conceptual Wetland Mitigation and Monitoring Plan Los Peñasquitos Canyon Preserve. March 2000.
- Dudek. 2019. Final Wetland Mitigation Plan for 2015/16 Emergency Channel Maintenance. May 2019.
- ESA. 2021. El Cuervo del Sur Phase 1 Wetlands Creation Site Monitoring Year 3 Annual Compensatory Mitigation Monitoring Report. March 2021.
- Holland, R.F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Nongame-Heritage Program, California Department of Fish and Game. October 1986.
- Oberbauer, T., M. Kelly, and J. Buegge. 2008. Draft Vegetation Communities of San Diego County. March 2008.
- San Diegans for Open Government et al. v. City of San Diego (San Diego Superior Court, Court of Appeals March 26, 2013).
- URS. 2014a. Final Los Peñasquitos Canyon Preserve Wetland Enhancement Plan. February 28, 2014, updated February 25, 2015, with assistance from Helix Environmental Planning, Inc.
- URS. 2014b. Final El Cuervo del Sur Wetland Habitat Mitigation and Monitoring Plan. February 28, 2014, updated February 25, 2015, with assistance from Helix Environmental Planning, Inc.

Appendix A

Municipal Waterways Maintenance Plan Annual Report Figures

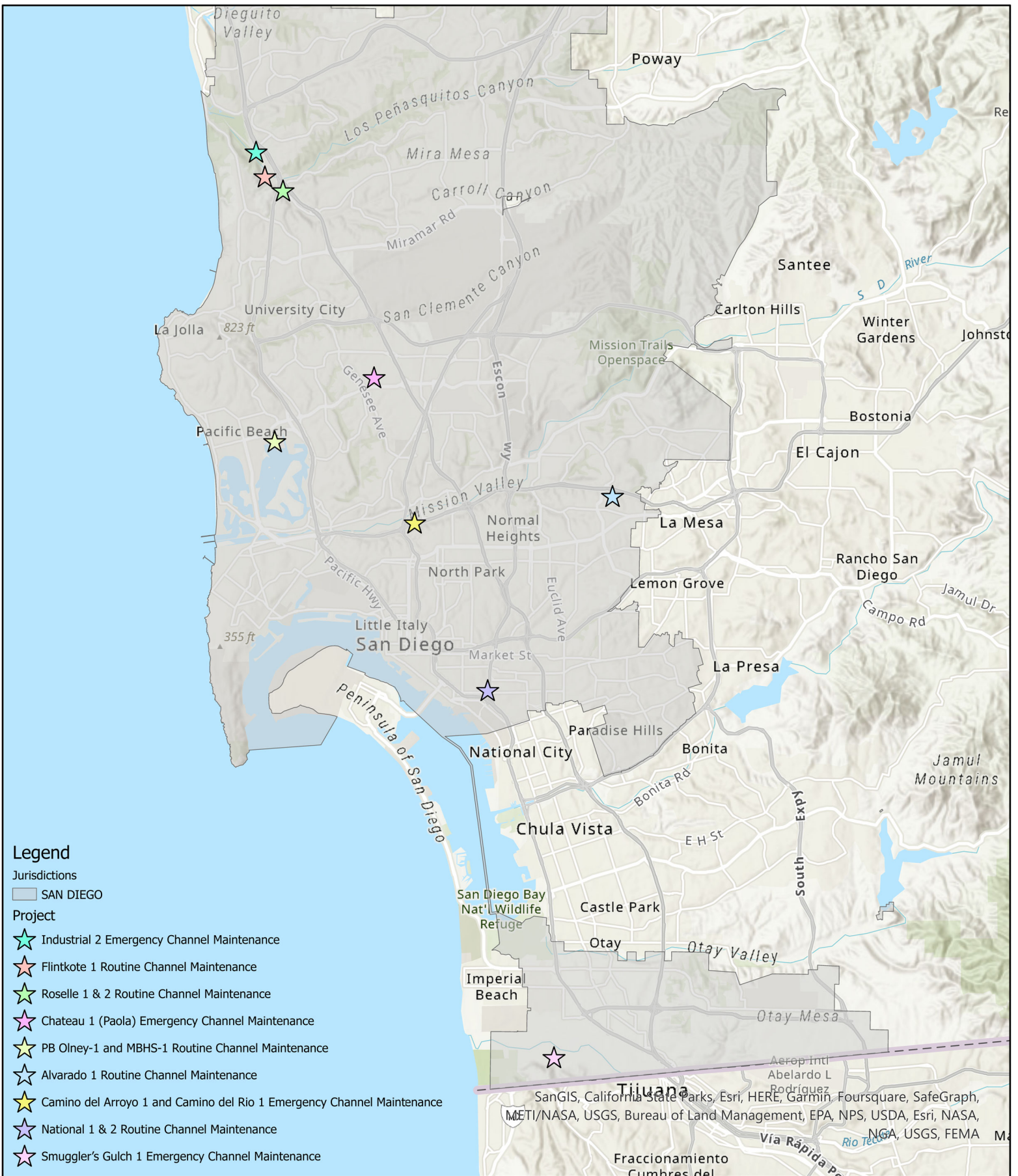


Figure 1. MWMP Maintenance Projects Completed in FY 22

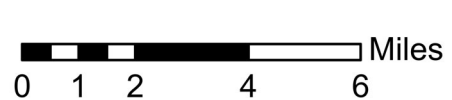
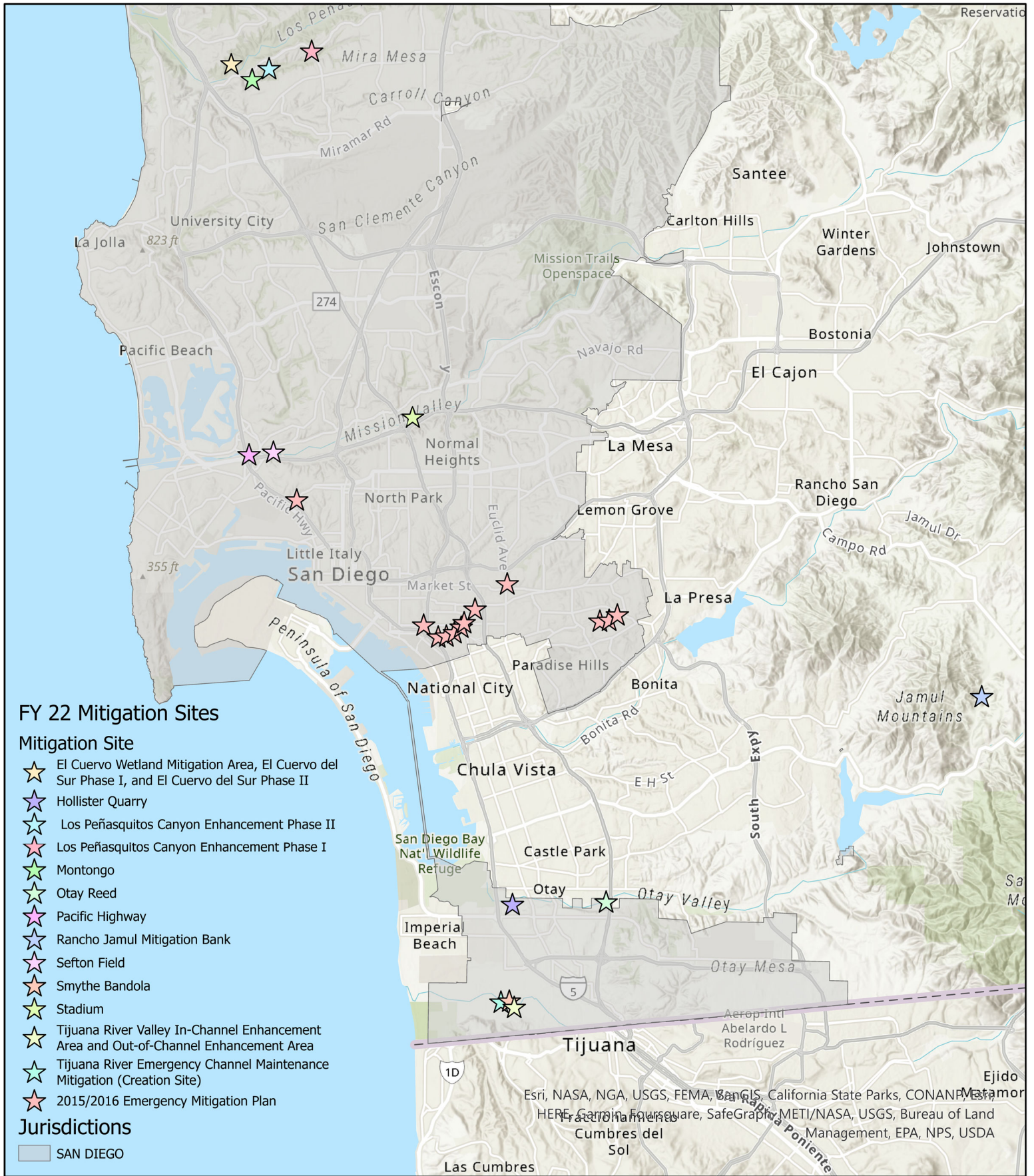
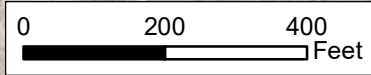
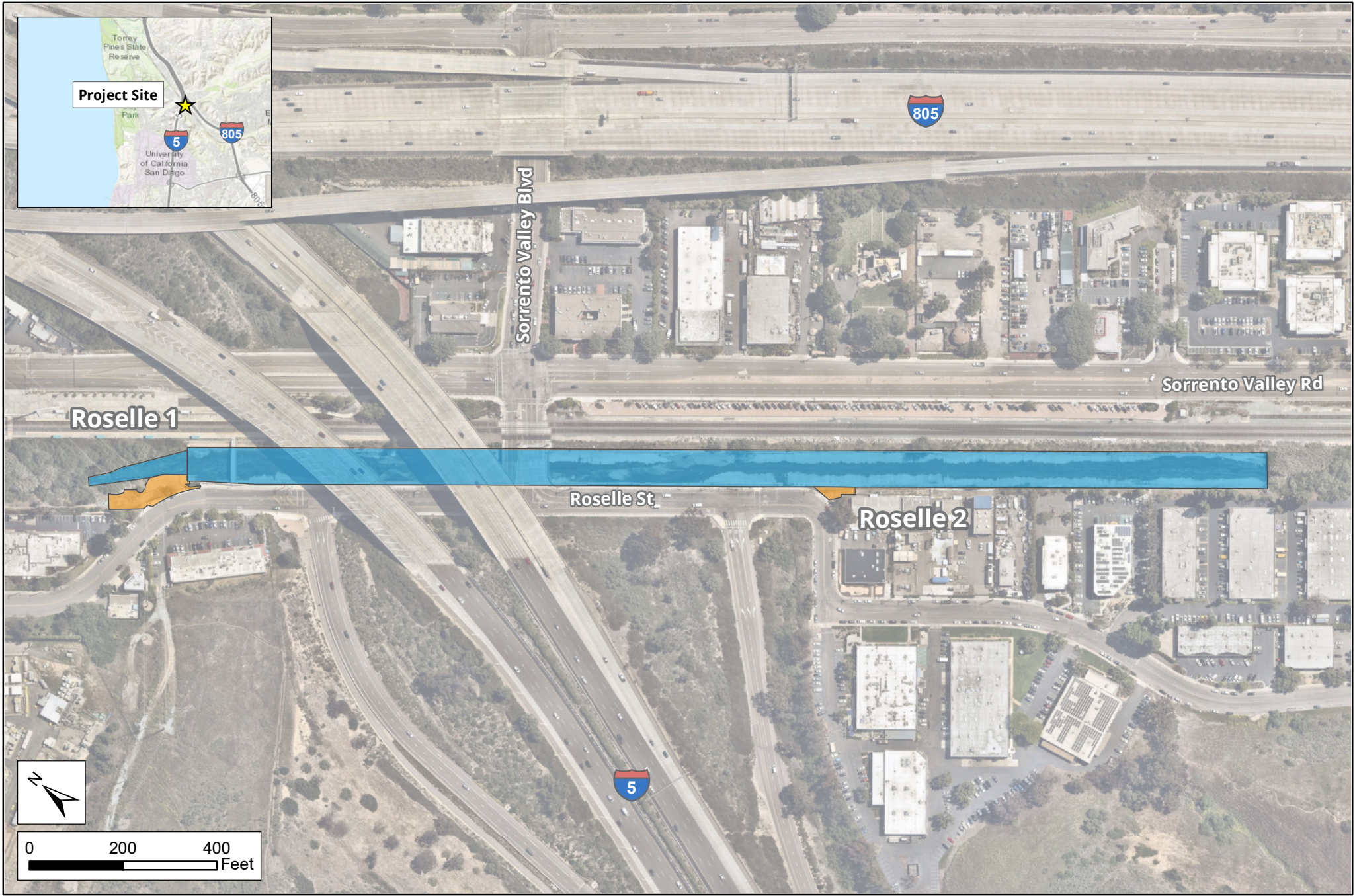


Figure 2. Stormwater Department Mitigation Sites



 Maintenance Area  Access, Stockpiling, and Staging Area

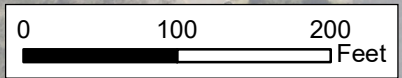
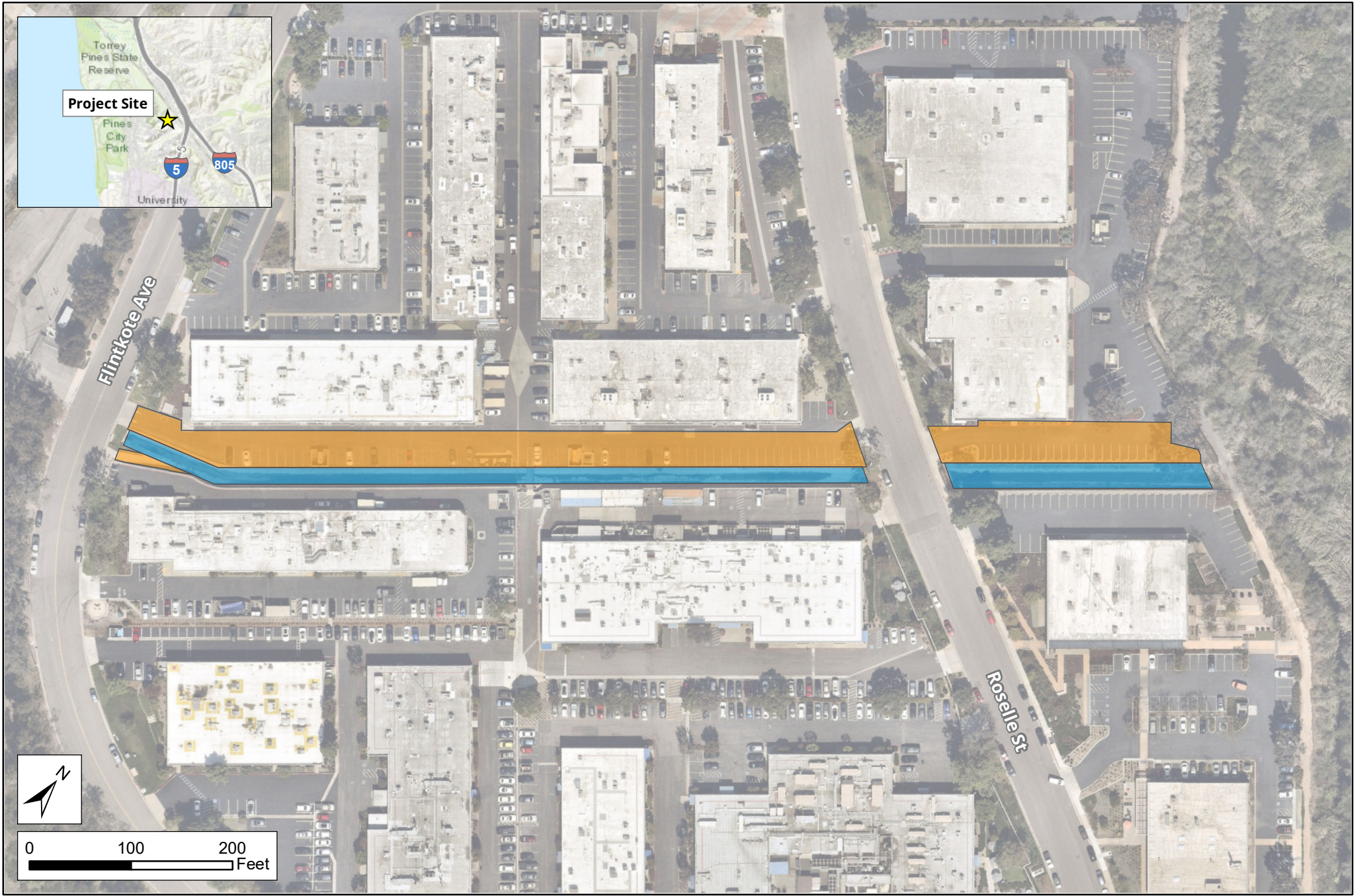
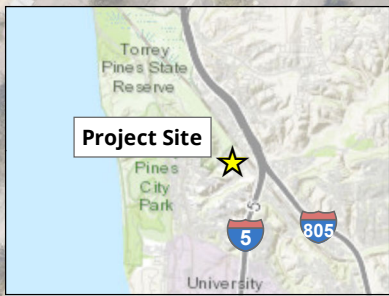
Roselle 1 & 2 (2-03-000 & 2-03-002)


FY 22 Routine Channel Maintenance

Municipal Waterways Maintenance Plan Annual Report

October 2022





 Maintenance Area  Access, Stockpiling, and Staging Area

Flintkote 1 (2-03-100)

FY 22 Routine Channel Maintenance

Municipal Waterways Maintenance Plan Annual Report

October 2022

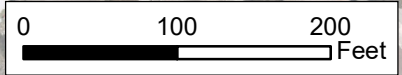
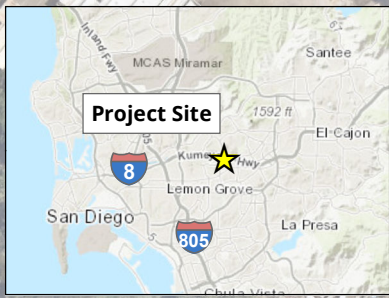




Maintenance Area
 Access, Stockpiling, and Staging Area

PB Olney 1 & MBHS 1 (3-02-101 & 3-02-103)
 FY 22 Routine Channel Maintenance
 Municipal Waterways Maintenance Plan Annual Report
 October 2022





 Maintenance Area  Access, Stockpiling, and Staging Area



Alvarado 1 (4-07-021)
FY 22 Routine Channel Maintenance
Municipal Waterways Maintenance Plan Annual Report
October 2022



 Maintenance Area  Access, Stockpiling, and Staging Area

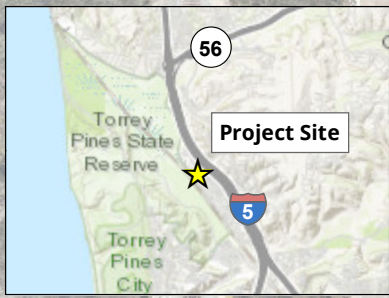
National 1 & 2 (5-04-004 & 5-04-006)



FY 22 Routine Channel Maintenance

Municipal Waterways Maintenance Plan Annual Report

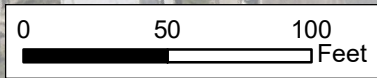
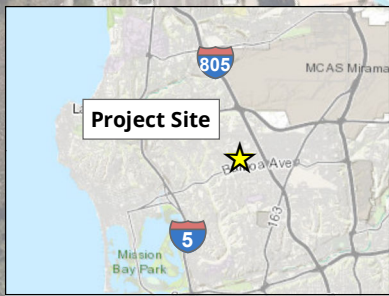
October 2022






 Maintenance Area  Access, Stockpiling, and Staging Area





 Maintenance Area  Access, Stockpiling, and Staging Area

Chateau 1 (Paola) (3-04-055)

FY 22 Emergency Channel Maintenance
Municipal Waterways Maintenance Plan Annual Report
October 2022





 Maintenance Area

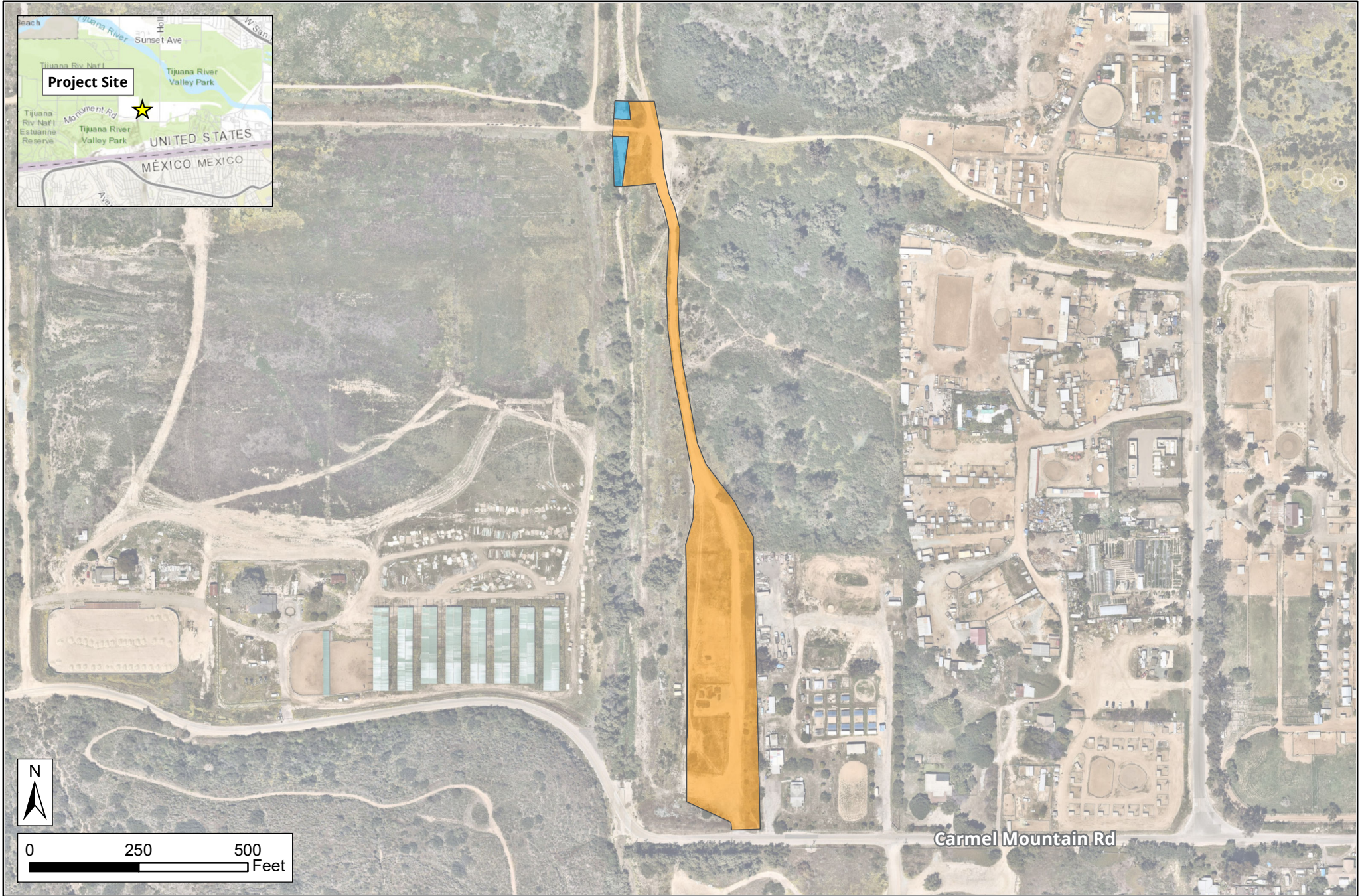
 Access, Stockpiling, and Staging Area

Camino del Arroyo 1 and Camino del Rio 1 (4-03-101 and 4-03-103)

FY 22 Emergency Channel Maintenance

Municipal Waterways Maintenance Plan Annual Report

October 2022



 Maintenance Area  Acces, Stockpiling, and Staging Area



Smugler's Gulch 1 (6-01-100)
FY 22 Emergency Channel Maintenance
Municipal Waterways Maintenance Plan Annual Report
October 2022

Appendix B

Master Stormwater Facility and Mitigation List

Master Stormwater Facility and Mitigation List

Facility Number	Facility Type	Facility Group Name	Segment Name-Number	Date of Most Recent Maintenance ¹	Mitigation Required (USACE/RWQCB/ CDFW/ CCC/ City) ²	Mitigation Site(s)
San Diego River Watershed						
1-04-030	Channel/Ditch	Green Valley Creek - Pomerado	Pomerado-1	Pre 2011	None to date	
1-04-033	Channel/Ditch	Green Valley Creek - Pomerado	Pomerado-2	Pre 2011	None to date	
1-04-200	Basin	Green Valley Creek - Paseo del Verano	Paseo del Verano-1	Pre 2011	None to date	
Los Penasquitos Watershed						
2-01-120	Channel/Ditch	Penasquitos Lagoon - Industrial	Industrial-1	2010	CCC	El Cuervo del Sur - Phase II
2-01-122	Channel/Ditch	Penasquitos Lagoon - Industrial	Industrial-2	2021	<u>USACE/RWQCB/CDFW/CCC/City</u>	El Cuervo del Sur - Phase I LPC Enhancement - Phase I El Cuervo del Sur - Phase II (add'l mit.)
2-01-130	Channel/Ditch	Penasquitos Lagoon - Tripp	Tripp-1	2010	CCC/City	LPC Enhancement - Phase I
2-01-200	Channel/Ditch	Los Penasquitos Canyon Creek - Black Mountain	Black Mountain-1	Pre 2011	None to date	
2-01-210	Channel/Ditch	Los Penasquitos Canyon Creek - Black Mountain	Black Mountain-2	Pre 2011	None to date	
2-01-900	Basin	Los Penasquitos Canyon Creek - 5-805 Basin	5-805 Fwy-1	2008	Self-mitigating	
2-03-000	Channel/Ditch	Soledad Canyon Creek - Sorrento	Roselle-1	2021	<u>USACE/RWQCB/CDFW/CCC/City</u>	El Cuervo Famosa
2-03-002	Channel/Ditch	Soledad Canyon Creek - Sorrento	Roselle-2	2021	<u>USACE/RWQCB/CDFW/CCC/City</u>	El Cuervo del Sur - Phase I LPC Enhancement - Phase I
2-03-012	Channel/Ditch	Carroll Canyon Creek - Carroll	Carroll Canyon-1	2016	City	El Cuervo del Sur - Phase I
2-03-100	Channel/Ditch	Soledad Canyon Creek - Flintkote	Flintkote-1	2022	<u>USACE/RWQCB/CDFW/CCC/City</u>	El Cuervo del Sur - Phase I LPC Enhancement - Phase I
2-03-150	Channel/Ditch	Soledad Canyon Creek - Dunhill	Dunhill-1	Pre 2011	CCC	El Cuervo del Sur - Phase II
2-05-140	Channel/Ditch	Chicariita Creek - Via San Marco	Via San Marco-1	Pre 2011	None to date	
HW04220	Structure	10405 Sorrento Valley Road		Pre 2011	None to date	
Mission Bay Watershed						
3-00-120	Channel/Ditch	Torrey Pines - Torrey	Torrey Pines-1	Pre 2011	None to date	
3-00-150	Basin	Alta La Jolla - Vickie	Vickie-1	2016	Self-mitigating	
3-02-101	Channel/Ditch	Mission Bay - Mission Bay High School	PB-Olney-1	2021	<u>USACE/RWQCB/CDFW/CCC/City</u>	Cuervo del Sur - Phase I LPC Enhancement - Phase I Marron Valley Cornerstone (Upland, City-only)
3-02-103	Channel/Ditch	Mission Bay - Mission Bay High School	MBHS-1	2021	<u>USACE/RWQCB/CDFW/CCC/City</u>	Cuervo del Sur - Phase I LPC Enhancement - Phase I Marron Valley Cornerstone (Upland, City-only)
3-02-130	Channel/Ditch	Mission Bay - Mission Bay Drive	Mission Bay Drive-1	2021	<u>USACE/RWQCB/CDFW/CCC/City</u>	El Cuervo del Sur - Phase II LPC Enhancement - Phase II
3-03-901	Channel/Ditch	Miramar - Engineer	Engineer-1	2017	None	
3-04-055	Channel/Ditch	Tecolote Creek - Chateau	Chateau-1	2021	None	
3-04-160	Channel/Ditch	Tecolote Creek - Genessee	Genessee-1	Pre 2011	None to date	
3-04-250	Channel/Ditch	Tecolote Creek - Chateau	Chateau-2	2016	None to date	
San Diego River Watershed						
4-01-103	Channel/Ditch	San Diego River - Nimitz	Nimitz-1	Pre 2011	None to date	
4-01-105	Channel/Ditch	San Diego River - Nimitz	Nimitz-2	Pre 2011	None to date	
4-01-107	Channel/Ditch	San Diego River - Nimitz	Nimitz-3	Pre 2011	None to date	
4-01-120	Channel/Ditch	San Diego River - Valeta	Valeta-1	Pre 2011	CCC	Hollister Quarry
4-03-101	Channel/Ditch	San Diego River - Camino del Rio	Camino del Arroyo-1	2022	<u>USACE/RWQCB/CDFW/City</u>	Stadium Mitigation Site
4-03-103	Channel/Ditch	San Diego River - Camino del Rio	Camino del Rio-1	2022	<u>USACE/RWQCB/CDFW/City</u>	Stadium Mitigation Site

Facility Number	Facility Type	Facility Group Name	Segment Name-Number	Date of Most Recent Maintenance ¹	Mitigation Required (USACE/RWQCB/ CDFW/ CCC/ City) ²	Mitigation Site(s)
4-04-006	Channel/Ditch	Murphy Canyon Creek – Murphy Canyon	Murphy Canyon-1	Pre 2011	None to date	
4-07-002	Channel/Ditch	Alvarado Canyon Creek - Mission Gorge	Mission Gorge-1	2017	USACE/RWQCB/CDFW/City	Stadium Mitigation Site
4-07-004	Channel/Ditch	Alvarado Canyon Creek - Mission Gorge	Mission Gorge-2	2017	USACE/RWQCB/CDFW/City	Stadium Mitigation Site
4-07-009	Channel/Ditch	Alvarado Canyon Creek - Mission Gorge	Mission Gorge-3	2021	<u>USACE/RWQCB/CDFW/City</u>	Stadium Mitigation Site
4-07-011	Channel/Ditch	Alvarado Canyon Creek - Mission Gorge	Mission Gorge-4	2021	<u>USACE/RWQCB/CDFW/City</u>	Stadium Mitigation Site
4-07-021	Channel/Ditch	Alvarado Canyon Creek - Alvarado	Alvarado-1	2022	USACE/RWQCB/CDFW/City	Stadium Mitigation Site
4-07-023	Channel/Ditch	Alvarado Canyon Creek - Alvarado	Alvarado-2	Pre 2011	None to date	
4-07-250	Channel/Ditch	Alvarado Canyon Creek - Alvarado	Alvarado-3	Pre 2011	None to date	
4-07-901	Channel/Ditch	Murray Reservoir - Cowles Mountain	Cowles Mountain-1	2018	None to date	
4-07-911	Channel/Ditch	Murray Reservoir - Cowles Mountain	Cowles Mountain-2	2018	City	Stadium Mitigation Site
4-08-008	Channel/Ditch	Norfolk Canyon Creek - Fairmount	Fairmount-1	Pre 2011	None to date	
4-08-011	Channel/Ditch	Norfolk Canyon Creek - Fairmount	Fairmount-2	Pre 2011	None to date	
4-08-014	Channel/Ditch	Norfolk Canyon Creek - Fairmount	Fairmount-3	Pre 2011	None to date	
4-08-017	Channel/Ditch	Norfolk Canyon Creek - Fairmount	Fairmount-4	Pre 2011	None to date	
4-08-105	Channel/Ditch	Norfolk Canyon Creek - Fairmount	Baja-1	2019	RWQCB/City	Stadium Mitigation Site Marron Valley Cornerstone (City only)
HW02437	Structure	2087 Hotel Circle South		2016	None to date	
HW02440	Structure	901 Hotel Circle South		2017	None to date	
IN10399	Structure	1277 Cam. Del Rio South		2017	None to date	
OT03321	Structure	1660 Hotel Circle North		2017	None to date	
OT03537	Structure	1331 Washington		Pre 2011	None to date	
OT05573	Structure	5505 Friars Road		2016	City	Sefton Field
Pueblo San Diego Watershed						
5-02-140	Basin	Maple Canyon Creek - Maple	Maple-1	Pre 2011	None to date	
5-02-151	Channel/Ditch	Washington Canyon Creek - Washington	Washington-1	2021	<u>USACE/RWQCB/CDFW/City</u>	2015/16 Emergency Mitigation Plan
5-02-153	Channel/Ditch	Washington Canyon Creek - Washington	Washington-2	2021	<u>USACE/RWQCB/CDFW/City</u>	2015/16 Emergency Mitigation Plan
5-02-162	Channel/Ditch	Mission Hill Canyon Creek - Titus	Titus-1	2016	None	
5-03-011	Channel/Ditch	Powerhouse Canyon Creek - Pershing	Pershing-1	Pre 2011	None to date	
5-03-100	Channel/Ditch	Powerhouse Canyon Creek - Pershing	Pershing-2	Pre 2011	None to date	
5-03-901	Channel/Ditch	San Diego Bay Unnamed Tributary - 28th St	28th St-1	Pre 2011	None to date	
5-04-004	Channel/Ditch	Chollas Creek - National	National-1	2022	<u>USACE/RWQCB/CDFW/City</u>	Stadium Mitigation Site 2015/16 Emergency Mitigation Plan Stadium Mitigation Site
5-04-006	Channel/Ditch	Chollas Creek - National	National-2	2022	<u>USACE/RWQCB/CDFW/City</u>	2015/16 Emergency Mitigation Plan
5-04-044	Channel/Ditch	Chollas Creek - Rolando	Cartagena-1	Pre 2011	None to date	
5-04-046	Channel/Ditch	Chollas Creek - Rolando	Rolando-1	Pre 2011	None to date	
5-04-048	Channel/Ditch	Chollas Creek - Rolando	Rolando-2	2016	RWQCB/City	2015/16 Emergency Mitigation Plan
5-04-101	Channel/Ditch	Chollas Creek Unnamed Tributary - Martin	Martin-1	Pre 2011	None to date	
5-04-163	Channel/Ditch	Chollas Creek - J St	J St-1	Pre 2011	None to date	
5-04-220	Channel/Ditch	Auburn Creek - Home	Home-1	2016	RWQCB/City	2015/16 Emergency Mitigation Plan Stadium Mitigation Site
5-04-224	Channel/Ditch	Auburn Creek - Home	Home-2	2019	RWQCB/City	Marron Valley Cornerstone (City only)
5-04-227	Channel/Ditch	Auburn Creek - Home	Home-3	Pre 2011	None to date	
5-04-231	Channel/Ditch	Auburn Creek - Home	Home-5	2020	RWQCB/City	Stadium Mitigation Site Otay Reed (City only)
5-04-239	Channel/Ditch	Auburn Creek - Wightman	Wightman-1	2016	None to date	
5-04-241	Channel/Ditch	Auburn Creek - Wightman	Wightman-2	2016	RWQCB/City	Onsite Restoration
5-04-260	Channel/Ditch	Chollas Creek Unnamed Tributary - Megan	Megan-1	Pre 2011	None to date	
5-04-262	Channel/Ditch	Chollas Creek Unnamed Tributary - Megan	Megan-2	Pre 2011	None to date	
5-04-280	Channel/Ditch	Chollas Creek - 54th St	54th St-1	Pre 2011	None to date	

Facility Number	Facility Type	Facility Group Name	Segment Name-Number	Date of Most Recent Maintenance ¹	Mitigation Required (USACE/ RWQCB/ CDFW/ CCC/ City) ²	Mitigation Site(s)
5-05-006	Channel/Ditch	South Chollas Creek - Southcrest	Alpha-1	2021	None to date	
5-05-008	Channel/Ditch	South Chollas Creek - Southcrest	Ocean View-1	Pre 2011	None to date	
5-05-021	Channel/Ditch	South Chollas Creek - Euclid	Euclid-2	Pre 2011	None to date	
5-05-035	Channel/Ditch	South Chollas Creek - Federal	Federal-1	2019	City	Stadium Mitigation Site HAF/Cornerstone
5-05-037	Channel/Ditch	South Chollas Creek - Federal	Federal-2	2019	None	
5-05-205	Channel/Ditch	South Chollas Creek Encanto Branch - Castana	Castana-1	Pre 2011	None to date	
5-05-306	Channel/Ditch	South Chollas Creek Encanto Branch - Imperial	Imperial-2	Pre 2011	None to date	
5-05-603	Channel/Ditch	South Chollas Creek Encanto Branch - Jamacha	Jamacha-1	2016	RWQCB/City	2015/16 Emergency Mitigation Plan
5-06-005	Channel/Ditch	Paleta Creek - Cottonwood	Cottonwood-1	2016	RWQCB/City	2015/16 Emergency Mitigation Plan
5-06-008	Channel/Ditch	Paleta Creek - Cottonwood	Cottonwood-2	2016	RWQCB/City	2015/16 Emergency Mitigation Plan
5-06-020	Channel/Ditch	Paleta Creek - Solola	Solola-1	Pre 2011	None to date	
5-06-023	Channel/Ditch	Paleta Creek - Solola	Solola-2	Pre 2011	None to date	
HW04013	Structure	4202 J Street		Pre 2011	None to date	
OT03694	Structure	3644 Roselawn		2016	None to date	
OT054671	Structure	1206 Goodyear		2016	None to date	
Sweetwater Watershed						
5-11-003	Channel/Ditch	Sweetwater River - Parkside	Parkside-1	2016	RWQCB/City	2015/16 Emergency Mitigation Plan
Otay Watershed						
5-22-008	Channel/Ditch	Nestor Creek - Nestor	Cedar-1	2016	CCC/City	Hollister Quarry
5-22-010	Channel/Ditch	Nestor Creek - Nestor	Cedar-2	2010	CCC/City	Hollister Quarry
5-22-013	Channel/Ditch	Nestor Creek - Nestor	Dahlia-1	Pre 2011	None to date	
5-22-016	Channel/Ditch	Nestor Creek - Nestor	Cerissa-1	Pre 2011	None to date	
5-22-023	Channel/Ditch	Nestor Creek - Nestor	Grove-1	Pre 2011	None to date	
5-22-028	Channel/Ditch	Nestor Creek - Nestor	30th St-1	Pre 2011	RWQCB/CDFW/City	Otay Reed
5-22-110	Channel/Ditch	Nestor Creek - Outer	Outer-1	Pre 2011	None to date	
5-22-112	Channel/Ditch	Nestor Creek - Outer	Outer-2	Pre 2011	None to date	
Tijuana River Watershed						
6-01-020	Channel/Ditch	Tijuana River - Pilot and Smugglers	Pilot Channel-1	2019	USACE/RWQCB/CDFW/CCC/City	TJ Emergency Mitigation Site TJ Enhancement Site
6-01-100	Channel/Ditch	Tijuana River - Pilot and Smugglers	Smuggler's Gulch-1	2022	USACE/RWQCB/CDFW/CCC/City	TJ Emergency Mitigation Site TJ Enhancement Site
6-02-118	Channel/Ditch	Tijuana River - Tocayo	Tocayo-2	Pre 2011	CCC	Hollister Quarry
6-03-135	Channel/Ditch	Tijuana River - Smythe	Via Encantadoras-1	Pre 2011	It was determined that the City of San Diego does not have maintenance responsibility	
6-03-138	Channel/Ditch	Tijuana River - Smythe	Via Encantadoras-2	Pre 2011	None to date	
6-03-143	Channel/Ditch	Tijuana River - Smythe	Via Encantadoras-3	Pre 2011	None to date	
6-03-147	Channel/Ditch	Tijuana River - Smythe	Smythe-1	2016	USACE/RWQCB/City	Smythe-Bandola Mitigation Site
6-03-150	Channel/Ditch	Tijuana River - Smythe	Via de la Bandola-1	2016	USACE/RWQCB/City	Smythe-Bandola Mitigation Site
6-04-251	Basin	Spring Canyo Creek - Cactus	Cactus-1	Pre 2011	None to date	
6-04-253	Basin	Spring Canyo Creek - Cactus	Cactus-2	Pre 2011	None to date	
6-05-110	Basin	Tijuana River - Siempre Viva	Siempre Viva-1	2019	None	
6-06-011	Channel/Ditch	Tijuana River - La Media	La Media-1	Pre 2011	None to date	

NOTES

1 - Pre 2011 indicates that facility was likely maintained prior to 2011 but has not been maintained since that time. Dates in **BOLD** are construction dates; these facilities have yet to be maintained following construction.
2 - City = City of San Diego; CCC = California Coastal Commission; USACE = US Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CDFW = California Department of Fish and Wildlife; None = routine maintenance was completed without any mitigation requirements; None to date = routine maintenance has not been conducted. Agency names in **BOLD** indicate that MWMP permits were utilized for most recent maintenance approval. All other approvals pre-date the MWMP.

Appendix C

Pre- and Post- Maintenance Photos

Roselle 1 & 2 (2-03-000 & 2-03-002) Routine Maintenance



Roselle Pre-Maintenance - Photo 7: View of Roselle 1 (earthen channel), looking south. Silt fencing in view with non-native vegetation shown in background.

(September 16, 2021)



Roselle Post-Maintenance - Photo 7: View of Roselle 1 (earthen channel), looking south. Maintenance activities shown to be complete

(November 4, 2021)



Roselle Pre-Maintenance - Photo 8: view showing both Roselle 1 & 2 taken from pedestrian crossing over Roselle 2, looking northwest. Thick vegetation shown to exist in channel.

(September 16, 2021)



Roselle Post-Maintenance - Photo 8: view showing both Roselle 1 & 2 taken from pedestrian crossing over Roselle 2, looking northwest. Maintenance activities shown to be complete.

(November 4, 2021)



Roselle Concrete Repair- Photo 9: View of minor concrete repair area (circled in red) completed within concrete-lined channel at Roselle 2, looking southeast.

(November 4, 2021)



Roselle Pre-Maintenance - Photo 10: view of Roselle 2 taken from sidewalk that runs parallel to Sorrento Valley Blvd, near the intersection with Roselle Street. Thick vegetation shown to be present in channel.

(September 16, 2021)



Roselle Post-Maintenance - Photo 10: view of Roselle 2 looking east from approximately the center of the channel showing vegetated and unvegetated sections of concrete-lining.

(November 4, 2021)



Roselle Pre-Maintenance - Photo 11: view of Roselle 2 looking east from approximately the center of the channel showing vegetated and unvegetated sections of concrete-lining.

(September 16, 2021)



Roselle Post-Maintenance - Photo 11: view of Roselle 2 looking east from approximately the center of the channel showing vegetated and unvegetated sections of concrete-lining.

(November 4, 2021)



Roselle Pre-Maintenance - Photo 12: view of Roselle 2 looking north from southern end of maintenance area. Sediment and vegetation shown in channel bed.

(September 16, 2021)



Roselle Post-Maintenance - Photo 12: view of Roselle 2 looking north from southern end of maintenance area. Maintenance activities shown to be complete.

(November 4, 2021)

Flintkote (2-03-100)



Flintkote Pre-Maintenance - Photo 1: view of Flintkote 1 looking northeast. Taken from western edge of project site. Thick vegetation shown in bed of channel.
(September 16, 2021)



Flintkote Post-Maintenance - Photo 1: view of Flintkote 1 looking northeast. Taken from western edge of project site. Maintenance activities shown to be complete
(November 4, 2021)



Flintkote Pre-Maintenance - Photo 2: View of Flintkote 1 looking south west towards the edge of the project site, taken from pedestrian footbridge. Vegetation shown in bed of channel.
(September 16, 2021)



Flintkote Post-Maintenance - Photo 2: View of Flintkote 1, looking southwest towards the edge of the project site, taken from pedestrian footbridge. Maintenance activities shown to be complete
(November 4, 2021)



Flintkote Concrete Repair - Photo 3: View of concrete patching done within concrete-lined channel at Flintkote 1, looking south.

(November 4, 2021)



Flintkote Pre-Maintenance - Photo 4: View of Flintkote 1 looking south from Roselle Street crossing. Access area shown next to vegetated channel.

(September 16, 2021)



Flintkote Post-Maintenance - Photo 4: View of Flintkote 1 looking south from Roselle Street crossing. Vegetation removal shown to be completed.

(November 4, 2021)



Flintkote Concrete Repair- Photo 5: View of concrete patching done within concrete-lined channel at Flintkote 1, looking northeast.
(November 4, 2021)



Flintkote Pre-Maintenance - Photo 6: View of Flintkote 1 looking southwest from eastern edge of the project. Access area shown next to vegetated channel.
(September 16, 2021)



Flintkote Post-Maintenance - Photo 6: View of Flintkote 1 looking southwest from eastern edge of the project. Maintenance activities shown to be complete.
(November 4, 2021)



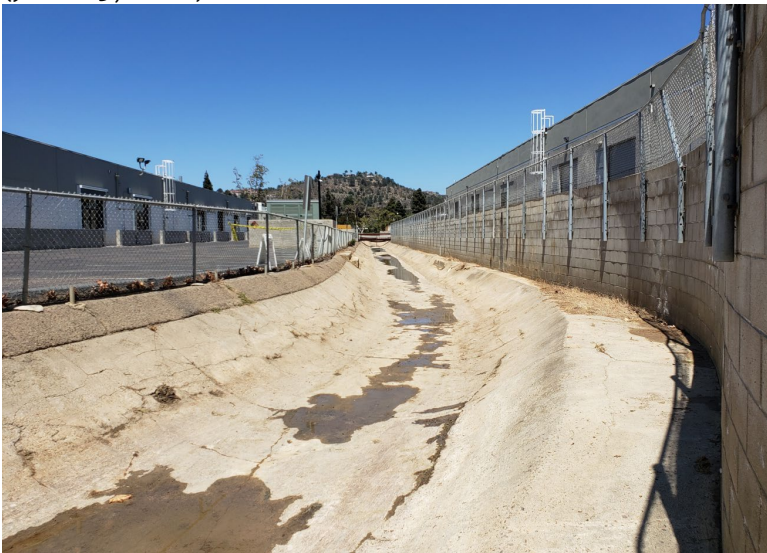
Flintkote premaintenance photo western terminus looking towards culverts and Flintkote Avenue
(June 25, 2022)



Flintkote post maintenance photo western terminus looking towards culverts and Flintkote Avenue
(June 25, 2022)



Flintkote pre-maintenance photo looking from the equipment access ramp on the western terminus east towards a mid-channel bridge crossing, illustrating silt, sparse and low growth vegetation (June 25, 2022)



Flintkote post maintenance photo looking from the equipment access ramp on the western terminus east towards a mid-channel bridge crossing (June 25, 2022)



Flintkote pre-maintenance photo looking from mid-channel bridge crossing west towards Flintkote Avenue, illustrating standing water, silt, sparse and low growth vegetation (June 25, 2022)



Flintkote post maintenance photo looking from mid-channel bridge crossing west towards Flintkote Avenue (June 25, 2022)



Flintkote premaintenance photo looking from mid-channel bridge crossing east towards Roselle Street, illustrating minor silt, standing water, and sparse vegetation growth (June 25, 2022)



Flintkote post maintenance photo looking from mid-channel bridge crossing east towards Roselle Street (June 25, 2022)



Flintkote pre-maintenance photo looking near Roselle Street east towards culverts that enter the Roselle channel, illustrating primarily silt and vegetation growth along the upper bank (June 25, 2022)



Flintkote post maintenance photo looking near Roselle Street east towards culverts that enter the Roselle channel (June 25, 2022)



Flintkote pre-maintenance photo at the eastern terminus looking towards Roselle Street, illustrating primarily silt and vegetation growth along the upper bank (June 25, 2022)



Flintkote post maintenance photo at the eastern terminus looking towards Roselle Street (June 25, 2022)

Pacific Beach-Olney 1 (3-02-101) and Mission Bay High School 1 (3-02-103) Routine Maintenance

	
<p>Photo Point 1 - Pre-maintenance: photo looking east at dense vegetation and trash within the western, downstream section of the PB-Olney 1 channel segment (12/1/2021).</p>	<p>Photo Point 1 - Post-maintenance: photo looking east at where the vegetation and trash removed from the western, downstream section of the PB-Olney 1 channel segment (12/10/2021).</p>
	
<p>Photo Point 2 - Pre-maintenance: photo looking east at dense vegetation within approximately the center section of the PB-Olney 1 channel segment (12/1/2021).</p>	<p>Photo Point 2 - Post-maintenance: photo looking southeast at where vegetation was removed from within approximately the center section of the PB-Olney 1 channel segment (12/10/2021).</p>



Photo Point 3 - Pre-maintenance: photo looking northwest at dense vegetation within the PB-Olney 1 channel segment (12/1/2021).



Photo Point 3 - Post-maintenance: photo looking northwest at where vegetation was removed from the PB-Olney 1 channel segment (12/10/2021).



Photo Point 4 - Pre-maintenance: photo looking northwest at dense vegetation within the MBHS 1 channel segment (12/1/2021).



Photo Point 4 - Post-maintenance: photo looking northwest at where vegetation was removed from the MBHS 1 channel segment (12/10/2021).

Alvarado 1 (4-07-021) Routine Maintenance



Photo Point 1 – Pre-Maintenance: Looking southwest within Alvarado 1 from the staging area at overgrown vegetation within the channel (January 26, 2022).



Photo Point 1 – Post-maintenance: Looking southwest within Alvarado 1 from the staging area at the channel cleared from excess vegetation (February 14, 2022).



Photo Point 2 – Pre-maintenance: Looking southwest within Alvarado 1 from the staging area at overgrown vegetation within the channel (January 26, 2022).



Photo Point 2 – Post-maintenance: Looking southwest within Alvarado 1 from the staging area at the channel cleared from vegetation and debris (February 14, 2022).



Photo Point 3 – Pre-Maintenance: Looking southwest within Alvarado 1 from the staging area at overgrown vegetation along the banks of the channel (January 26, 2022).



Photo Point 3 – Post-maintenance: Looking southwest within Alvarado 1 from the staging area at the banks of the channel cleared of invasive vegetation (February 14, 2022).



Photo Point 4 – During-maintenance: Looking northwest within Alvarado 1 from the staging area at overgrown vegetation and debris within the channel (January 31, 2022).



Photo Point 4 – Post-maintenance: Looking northwest within Alvarado 1 from the staging area at the channel cleared from vegetation and debris (February 14, 2022).

	
<p>Concrete Repair 1 - Pre-Maintenance: Minor break in concrete in need of repair within the Alvarado 1 channel (February 10, 2022).</p>	<p>Concrete Repair 1- Post-maintenance: Repaired minor break in concrete within the Alvarado 1 channel (February 11, 2022).</p>
	
<p>Concrete Repair 2 - During-maintenance: Broken concrete at bottom of access ramp within Alvarado 1 channel in need of repair (February 10, 2022).</p>	<p>Concrete Repair 2 - Post-maintenance: Concrete repaired at bottom of access ramp within Alvarado 1 channel (February 11, 2022).</p>

National 1 & 2 (5-04-004 & 5-04-006) Routine Maintenance



Photo Point 1 – Pre-Maintenance: Looking south within National 1 from the National Ave. bridge at material and trash accumulated within the channel (October 21, 2021).



Photo Point 1 – Post-maintenance: Looking south within National 1 from below the National Ave. bridge at post-maintenance conditions (January 17, 2022)



Photo Point 2 – Pre-maintenance: Looking north above National 1 from National Ave. bridge at vegetation and sediment/cobble accumulation within the channel (October 21, 2021).



Photo Point 2 – Post-maintenance: Looking northeast above channel from National Ave. bridge at maintenance area following sediment and vegetation removal (January 17, 2022).



Photo Point 3 – Pre-maintenance: Looking northwest at access ramp prior to the start of maintenance (October 21, 2021).



Photo Point 3 – Post-maintenance: Looking northwest at access ramp following completion of channel maintenance activities (January 17, 2022).



Photo Point 4 – Pre-maintenance: Looking north within National 1 from within the channel north of the National Ave. bridge towards National 2 prior to the start of maintenance (October 21, 2021).



Photo Point 4 – Post-maintenance: Looking north within National 1 from within the channel north of the National Ave. bridge towards National 2 following completion of maintenance activities (January 17, 2022).



Photo – During-maintenance: Looking northeast within National 2 showing widened access ramp and sediment deposition as well demarcated disturbed coastal salt marsh (October 29, 2021).



Photo – During-maintenance: Looking northeast from National Ave. bridge into the National 1 channel where water has inundated the maintenance area during high tides (November 15, 2021).




Photo – During-maintenance: Looking northeast within National 2 showing an excavator and dump trucks working within the concrete-lined channel (January 8, 2022).



Photo - During-maintenance: Looking southeast within National 2 at the concrete repair location following concrete pour (January 13, 2022).

	
<p>Photo Point 5 – Pre-maintenance: Looking north within National 2 at sediment and vegetation accumulated within the concrete-lined channel (October 21, 2021).</p>	<p>Photo Point 5 – Post-maintenance: Looking north within National 2 at the cleared concrete-lined channel following completion of maintenance activities (January 17, 2022).</p>
	
<p>Photo Point 6 – Pre-maintenance: Looking north towards the Ocean View Blvd. bridge from within National 2 prior to maintenance (October 21, 2021).</p>	<p>Photo Point 6 – Post-maintenance: Looking north towards the Ocean View Blvd. bridge from within National 2 following completion of maintenance activities (January 17, 2022).</p>

	
<p>Photo Point 7 – Pre-maintenance: Looking north within National 2 from just north of Ocean View Blvd. bridge prior to maintenance (October 21, 2021).</p>	<p>Photo Point 7 – Post-maintenance: Looking north within National 2 from just north of Ocean View Blvd. bridge following completion of maintenance activities (January 17, 2022).</p>
	
<p>Photo Point 8 – Pre-maintenance: Looking north from within National 2 at the northern end of the maintenance area and concrete access ramp prior to maintenance (October 21, 2021).</p>	<p>Photo Point 8 – Post-maintenance: Looking north from within National 2 at the northern end of the maintenance area and concrete access ramp following completion of maintenance activities (January 17, 2022).</p>

Industrial 2 (2-01-122) Emergency



Pre-Maintenance - Photo 1: Pre-maintenance photo facing south from the 11815 Sorrento Valley Road parking lot looking at vegetation present in the Industrial 2 channel.
(October 4, 2021)



Post-Maintenance - Photo 1: Pre-maintenance photo facing south from the 11815 Sorrento Valley Road parking lot following completion of native wetland vegetation removal in the Industrial 2 channel.
(November 11, 2021)



Pre-Maintenance - Photo 2: Pre-maintenance photo facing northeast from within the developed concrete lined channel looking at vegetation accumulated in the downstream end of the Industrial 2 channel maintenance area.
(October 4, 2021)



Post-Maintenance - Photo 2: Post-maintenance photo facing northeast from looking the cleared and repaired concrete lining within the Industrial 2 channel.
(November 11, 2021)



Pre-Maintenance - Photo 3: Pre-maintenance photo facing southwest from within the developed concrete lined channel looking at vegetation accumulated in the the Industrial 2 channel.

(October 4, 2021)



Post-Maintenance - Photo 3: Post-maintenance photo facing southwest looking towards the culvert inlet under Sorrento Valley Boulevard at the cleared and repaired concrete lining within the Industrial 2 channel.

(November 11, 2021)



Pre-Maintenance - Photo Point 4: Pre-maintenance photo facing northeast from Sorrento Valley Road looking at vegetation accumulated in the downstream end of the Industrial 2 channel

(October 4, 2021)



Post-Maintenance - Photo Point 4: Post-maintenance photo facing northeast from Sorrento Valley Road (east side) looking at vegetation and sediment removal area in the downstream end of the Industrial 2 channel. Water accumulated here due to off-site, downstream blockage on MTS property (outside City-jurisdiction).

(November 11, 2021)



Pre-Maintenance - Photo Point 5: Pre-maintenance photo facing southwest from the developed concrete-lined channel looking at the upstream limits of vegetation accumulated in the Industrial 2 channel

(October 4, 2021)

Post-Maintenance - Photo Point 5: Post-maintenance photo facing southwest from the developed concrete-lined channel looking at the cleared and repaired concrete lining in the Industrial 2 channel. Fence in pre-maintenance photo in developed area will be re-installed at a later date.

(November 11, 2021)



Pre-Maintenance - Photo Point 6: Pre-maintenance photo facing northeast from the developed concrete-lined channel looking at upstream limits of the Industrial 2 channel

(October 4, 2021)





Post-Maintenance - Photo Point 6: Post-maintenance photo facing northeast and looking at upstream limits of the Industrial 2 channel where minor trimming of ornamental species occurred along the channel banks.

(November 11, 2021)

Chateau 1 (Paola) (3-04-055) Emergency

	
<p>Pre-Maintenance (PP-1)</p>	<p>Post-Maintenance (PP-1)</p>
<p>Looking northeast at the access point to the Chateau Channel for crews, the excavator, the bobcat, and the dump truck (10/7/2021).</p>	<p>No post maintenance photo available for this photo point.</p>
	
<p>Pre-Maintenance (PP-2)</p>	<p>Post-Maintenance (PP-2)</p>
<p>Looking northeast at palm trees and dense vegetation developed within the downstream end of the channel (10/7/2021).</p>	<p>Looking northeast in channel, maintenance activities shown to be complete (12/6/2021).</p>

	
<p align="center">Pre-Maintenance (PP-3)</p>	<p align="center">Post-Maintenance (PP-3)</p>
<p>Looking southeast at the culvert on the southern end of the channel partially covered with vegetation (10/7/2021).</p>	<p>Looking southeast at the culvert on the southern end of the channel, vegetation and material removal shown to be complete (12/6/2021).</p>
	
<p align="center">Pre-Maintenance (PP-4)</p>	<p align="center">During-Maintenance (PP-4)</p>
<p>Looking northeast at disturbed wetland vegetation accumulated within the channel bottom (10/7/2021).</p>	<p>View of crews removing disturbed wetland vegetation during maintenance (12/6/2021).</p>

	
<p>Pre-Maintenance (PP-5)</p>	<p>Post-Maintenance (PP-5)</p>
<p>Looking northwest at palm trees established in the channel (10/7/2021).</p>	<p>Looking northwest in channel, vegetation removal shown to be complete (12/6/2021).</p>
	
<p>Pre-Maintenance (PP-6)</p>	<p>Post-Maintenance (PP-6)</p>
<p>Looking northwest at accumulated sediment and pooled water in the channel (10/7/2021).</p>	<p>Looking northwest in channel, sediment and vegetation removal shown to be complete (12/6/2021).</p>

	
<p style="text-align: center;">Pre-Maintenance (PP-7)</p> <p style="text-align: center;">Looking northeast at the upstream outfall and channel bank partially covered with vegetation (10/7/2021).</p>	<p style="text-align: center;">Post-Maintenance (PP-7)</p> <p style="text-align: center;">Looking northeast at the upstream outfall, vegetation and soil material shown to be removed (12/6/2021).</p>
	
<p style="text-align: center;">Pre-Maintenance</p> <p style="text-align: center;">Looking northeast within the channel at the damaged concrete panel (10/7/2021).</p>	<p style="text-align: center;">Post-Maintenance</p> <p style="text-align: center;">Looking northeast towards repaired concrete panel (12/6/2021).</p>

Camino Del Arroyo 1 (4-03-101) and Camino Del Rio 1 (4-03-103) Emergency



Pre-Maintenance Photo Point 1: Looking south from the northern, downstream end of Camino del Arroyo-vegetation and willow scrub/trees visible within the channel (12/11/21).



Post-Maintenance Photo Point 1: Looking south from the northern, downstream end of Camino del Arroyo-maintenance shown to be complete, concrete repair shown on left (3/2/22).



Pre-Maintenance Photo Point 2: Looking southeast from the western edge of Camino del Arroyo 1 – willow scrub/trees and vegetation shown within the channel (12/11/2021).



Post-Maintenance Photo Point 2: Looking southeast from the western edge of Camino del Arroyo 1 – vegetation shown to be removed from channel, concrete repair shown (3/2/2022).



Pre-Maintenance Photo Point 3: Looking southeast from the southern end of Camino del Arroyo 1 – willow scrub/trees and vegetation shown within the channel at the start on maintenance (12/11/2021).



Post-Maintenance Photo Point 3: Looking south from the southern end of Camino del Arroyo 1 – vegetation shown to be removed from channel. Concrete repair areas shown. (3/2/2022).



Pre-Maintenance Photo Point 4: Looking north from the southern end of Camino del Arroyo 1 – thick willow scrub/trees and vegetation shown within the channel (12/09/2021).



Post-Maintenance Photo Point 4: Looking north from the southern end of Camino del Arroyo 1 – vegetation shown to be removed from channel and concrete repair areas visible (3/2/2022).



Pre-Maintenance Photo Point 5: Looking east from western end of Camino del Rio 1 at vegetation and other materials accumulated in channel (12/11/2021).



Post-Maintenance Photo Point 5: Looking east from western end of Camino del Rio 1. Vegetation had been removed from channel, concrete repair shown on left (3/2/2022).



Pre-Maintenance Photo Point 6: Looking southwest from north bank of Camino del Rio 1 at vegetation and other materials accumulated in the downstream section of the channel (12/11/2021).



Post-Maintenance Photo Point 6: Looking southwest from north bank of Camino del Rio 1 at location where vegetation and soils were removed from channel (3/2/2022).



Pre-Maintenance Photo Point 7: Looking southwest from the northern side of Camino del Rio 1 at vegetation accumulated in the channel (12/11/2021).



Post-Maintenance Photo Point 7: Looking northwest from the southern end of Camino del Rio 1 – vegetation shown to be removed from channel (3/2/2022).



Pre-Maintenance Photo Point 8: Looking east from the northern side of Camino del Rio 1 at vegetation accumulated within the channel (12/11/2021).



Post-Maintenance Photo Point 8: Looking east from the northern side of Camino del Rio 1 –vegetation and soil materials shown to be removed from channel, concrete repair shown (3/2/2022).



Pre-Maintenance Photo Point 9: Looking southwest from the eastern, upstream end of Camino del Rio 1 at thick vegetation growth in channel (12/11/2021).



Post-Maintenance Photo Point 9: Looking southwest from the eastern, upstream end of Camino del Rio 1 where vegetation and material was removed. Concrete repair areas visible (3/2/2022).

Smuggler's Gulch (6-01-100) Emergency



Photo 1: Pre-construction photo showing trash accumulation within the channel and blocking south side of Disney Bridge culverts (12/22/2021).



Photo 2: Pre-construction photo showing trash and debris blocking Disney Bridge culverts on north side (12/22/2021).



Photo 3: Pre-construction photo showing trash and debris blocking Disney Bridge culverts on the north side (12/23/2021).



Photo 4: Stockpile in staging area with silt fence and fiber rolls installed (12/23/2021).



Photo 5: Drip pans placed under equipment parked in staging area (12/23/2021).



Photo 6: Debris from a stockpile in staging area being managed and loaded for removal by heavy machinery (12/23/2021).



Photo 7: Looking south at Disney bridge culverts nearly cleared from trash and debris (12/23/2021).



Photo 8: Trash, debris, and detritus stockpiled in staging area for removal during the following site visit (12/23/2021).



Photo 9: Dirt berm and pump being used to divert water flows away from the work area (1/04/2022).



Photo 10: Excavators used to continue the removal of trash, debris, and detritus from the channel (1/04/2022).