

California Regional Water Quality Control Board, San Diego Region

April 21, 2014

Certified Mail – Return Receipt Requested
Article Number: 7011 0470 0002 8952 5973

Dirk Smith
City of San Diego
9191 Topaz Way, MS 901A
San Diego, CA 92123

**In reply/refer to:
802076:lhonma**

Subject: Clean Water Act Section 401 Water Quality Certification No. R9-2013-0192 for the Murphy Canyon Road Trunk Sewer Manhole Access and Pipe Joint Repair Project

Mr. Smith:

Enclosed find Clean Water Act Section 401 Water Quality Certification No. R9-2013-0192 (Certification) issued by the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) in response to the application submitted by the City of San Diego for the **Murphy Canyon Road Trunk Sewer Manhole Access and Pipe Joint Repair Project** (Project). A description of the Project and Project location can be found in the Certification and site maps which are included as attachments to the Certification.

The City of San Diego is enrolled under State Water Resources Control Board Order No. 2003-017-DWQ as a condition of the Certification and is required to implement and comply with all terms and conditions of the Certification in order to ensure that water quality standards are met for the protection of wetlands and other aquatic resources. Failure to comply with this Certification may subject the City of San Diego to enforcement actions by the San Diego Water Board including administrative enforcement orders requiring the City of San Diego to cease and desist from violations or to clean up waste and abate existing or threatened conditions of pollution or nuisance; administrative civil liability in amounts of up to \$10,000 per day per violation; referral to the State Attorney General for injunctive relief; and, referral to the District Attorney for criminal prosecution.

Any petition for reconsideration of this Certification must be filed with the State Water Resources Control Board within 30 days of certification action pursuant to section 3867 of Title 23 of the California Code of Regulations (23 CCR). If no petition is received, it will be assumed that the City of San Diego has accepted and will comply with all terms and conditions of the Certification.

In the subject line of any response, please include reference number 802076:lhonma. For questions or comments, please contact Lisa Honma by telephone at (619) 521-3367 or by email at Lisa.Honma@waterboards.ca.gov.

Respectfully,



DAVID W. GIBSON
Executive Officer

Enclosure:

Clean Water Act Section 401 Water Quality Certification No. R9-2013-0192 for the Murphy Canyon Road Trunk Sewer Manhole Access and Pipe Joint Repair Project

DWG:jgs:db:kd:lbh

cc: (via email)

Meris Bantilan-Smith
U.S. Army Corps of Engineers, Regulatory Branch
San Diego Field Office
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State Water Resources Control Board, Division of Water Quality
401 Water Quality Certification and Wetlands Unit
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Tech Staff Info & Use	
Certification No.	R9-2013-0192
WDID	9 000002681
Regulatory ID	394376
Place ID	802076
Party ID	537145
Person ID	488761

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

2375 Northside Drive, Suite.100, San Diego, CA 92108
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Clean Water Act Section 401 Water Quality Certification
and Waste Discharge Requirements
for Discharge of Dredged and/or Fill Materials

**PROJECT: Murphy Canyon Road Trunk Sewer Manhole Access
and Pipe Joint Repair Project
Certification Number R9-2013-0192
WDID: 9 000002681**

Reg. Meas. ID: 394376 Place ID: 802076 Party ID: 537145 Person ID: 488761
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**APPLICANT: City of San Diego,
Public Utilities Department
9191 Topaz Way, M.S. 901A
San Diego, CA 92123**

ACTION:

<input type="checkbox"/> Order for Low Impact Certification	<input type="checkbox"/> Order for Denial of Certification
<input checked="" type="checkbox"/> Order for Technically-conditioned Certification	<input type="checkbox"/> Waiver of Waste Discharge Requirements
<input checked="" type="checkbox"/> Enrollment in SWRCB GWDR Order No. 2003-017-DWQ	<input type="checkbox"/> Enrollment in Isolated Waters Order No. 2004-004-DWQ

PROJECT DESCRIPTION

An application dated December 19, 2013 was submitted by the City of San Diego (hereinafter Applicant), for Water Quality Certification pursuant to section 401 of the Clean Water Act (33 U.S.C. § 1341) for the proposed Murphy Canyon Road Trunk Sewer Manhole Access and Pipe Joint Repair Project (Project). The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) deemed the application to be complete on January 17, 2014. The Applicant proposes to discharge dredged or fill material to waters of the United States and/or State associated with construction activity at the Project site. The Applicant has received a Letter of Verification for Nationwide Permit Number 3 from the United States Army Corps of Engineers for the Project (USACE File No. SPL-2012-00775-MBS).

The Project is located within the City of San Diego, San Diego County, California in Murphy Canyon Creek, parallel to Interstate 15 at Friars Road. The Project center reading is located at latitude 32.786057 and longitude -117.115010. The Applicant has paid all required fees for this Certification in the amount of \$2,643.00. On December 23, 2013, the San Diego Water Board provided public notice of the Project application pursuant to California Code of Regulations, title 23, section 3858 by posting information describing the Project on the San Diego Water Board's web site and providing a period of twenty-one days for public review and comment. No comments were received.

The Applicant proposes to repair a section of 30-inch trunk sewer pipe located within Murphy Canyon Creek (Creek) between manholes (MH) 110 and 111 that is allowing groundwater infiltration into the sewer system. The repair consists of activities associated with the installation of cured-in-place-pipe (CIPP) lining between MHs 110 and 111. The project is expected to take no longer than 8 weeks to complete.

Access areas of approximately 40-feet by 40-feet will be permanently impacted around each of MHs 109, 110, and 111 for the purpose of clearing vegetation and removal of up to 6 feet of sediment to provide space for the equipment needed to install the CIPP liner. MHs 109 and 110 are within a trapezoidal concrete lined section of the Creek and MH 111 is within a soft-bottom section of the Creek between earthen/concrete berms. Excavation will be conducted using rubber-tired equipment including a Bobcat, a mini excavator, and potentially a backhoe. For MH 111, the equipment will track down the side of the Creek impacting wetland vegetation growing on the side of the earthen berm. All equipment and stockpiling of materials will be staged in a designated area outside the wetland to avoid and minimize impacts to wetland waters (see the Site Development Plan included in Attachment 3 of this Certification). Materials including vegetation, soils, and sediment excavated from the work areas will be hauled away for disposal at a landfill. In addition, measures will be taken to minimize impacts that include flagging/fencing work areas to protect adjacent biological resources, using best management practices during construction to ensure erosion and sediment control, and performing a pre-construction bird survey 72 hours prior to vegetation clearing to ensure protection of existing beneficial use of habitat.

Two temporary coffer dams will be installed upstream and downstream of each MH (a total of 6 coffer dams) for the purpose of dewatering the work area. The coffer dams will be constructed by creating clay bag walls up to 10 feet high to form a containment box around each work area. A generator and pump will be used to dewater approximately 6 feet of standing water around MHs 110 and 111, which will be pumped directly into MH 112 (located in the stadium parking lot). Dewatering will be performed in a manner that is consistent with the description provided in the Dewatering Work Area Plan (included in Attachment 3). No water will be placed back into the stream channel. After completing the work, the clay bags will be removed from all locations and water will be allowed to gradually flow back into the areas. The containment boxes may temporarily constrict the water flow through the channel during Project activity, potentially stressing existing wetland habitat within the creek channel. However, the Project duration is relatively short-term and the habitat will be removed as a part of a channel maintenance project in the near future.

The sewage in the pipe will be by-pass pumped from MH 109 to MH 112 during the CIPP liner installation. This will be accomplished by installing three 10-inch diameter hoses into MH 109 and running the hoses down the length of the bike path to MH 112.

Impacts to wetland habitat will result from the maintenance work as the vegetation and sediment will not be restored. It is not anticipated that the Project will change the overall hydrology of the channel once the construction has been completed. The existing dense vegetation within the channel is expected to hold adjacent sediment in place and prevent erosion downstream of the site. Additionally, it is anticipated that excavated areas will refill with sediment from upstream areas over time.

The Project application includes a description of the design objective, operation, and degree of treatment expected to be attained from equipment, facilities, or activities (including construction BMPs) to treat waste and reduce runoff or other effluents which may be discharged. Compliance with the Certification conditions will help ensure that construction and post-construction discharges from the Project will not cause on-site or off-site downstream erosion, damage to downstream properties, or otherwise damage stream habitats in violation of water quality standards in the *Water Quality Control Plan for the San Diego Basin (9)* (Basin Plan).

Project construction will permanently impact 0.051 acre (120 linear feet) of freshwater marsh wetland waters of the United States and/or State. The Applicant reports that the Project purpose cannot be practically accomplished in a manner which would avoid or result in less adverse impacts to aquatic resources considering all potential practicable alternatives, such as the potential for alternate available locations, designs, reductions in size, configuration or density.

The Applicant reports that compensatory mitigation for the permanent loss of 0.051 acre of jurisdictional waters will be achieved through the use of 0.051 acres of establishment credits and 0.051 acres of enhancement credits from the City of San Diego's San Diego River Wetland Creation Site and Rancho Mission Enhancement Site (ledgers provided in Attachment 4). The mitigation proposed includes 120 linear feet of each establishment and enhancement mitigation for a combined amount of 240 linear feet. Although not anticipated during the Project, all waters of the United States and/or State receiving temporary discharges of fill material will be restored upon removal of the fill. Mitigation for discharges of fill material to waters of the United States and/or State has been completed by the Applicant at the San Diego River Wetland Creation Site and the Rancho Mission Enhancement Site located in the Mission San Diego hydrologic sub-area (HSA 907.11) at a minimum compensation ratio of 2:1 (area mitigated:area impacted).

The mitigation sites were constructed in accordance with the *Final Conceptual Mitigation Plan for the Canyon Sewer Projects within the San Diego Watershed, City of San Diego Metropolitan Wastewater Department Camino Del Rio North Site* (San Diego River Wetland Creation Project Site), dated April 9, 2004 and the *Final Conceptual Wetlands Enhancement Plan for Rancho Mission Canyon* (Rancho Mission Enhancement Site), dated November 21, 2005 (hereinafter referred to collectively as the Mitigation Plans) that describe the detailed written specifications and work descriptions for the compensatory mitigation project including, but not limited to, the geographic boundaries of the project, timing, sequence, monitoring, maintenance, ecological success performance standards and provisions for long-term management and protection of the mitigation areas. Both mitigation sites received regulatory sign-off from the U.S. Army Corps of Engineers by letters dated August 8, 2012 and July 1, 2013 (Attachment 4). These mitigation sites are owned by the City of San Diego and are preserve areas within the Multiple Species Conservation Program (MSCP) Multi-habitat Planning Areas. The MSCP provides permanent protections against development and edge effects from adjacent development through open space easements, dedications, zoning, and general plan designations, which satisfies San Diego Water Board requirements for mitigation site protection.

The City of San Diego Park and Recreation Department maintains long-term management of the City's mitigation sites, which is performed in accordance with the MSCP Plan. The following management actions are included in the maintenance: perimeter control (fencing and signage), removal of trash, removal of invasive non-native species, and monitoring. Monitoring includes tracking of covered species, habitat conditions, and general observation of any other factors that could degrade the function and values of the preserve area (e.g., fire, flooding, or excessive erosion). Annual biological assessments of the mitigation sites are performed and the results are reported in the Annual Open Space Citizen's Advisory Committee Report. Through this process, the City addresses any problems identified through the assessment.

The compensatory mitigation offsets adverse water quality impacts attributed to the Project in a manner that protects and restores the abundance, types and conditions of aquatic resources and supports their beneficial uses. Based on all of these considerations, the compensatory mitigation will adequately compensate for the loss of beneficial uses and habitat within waters of the United States and/or State attributable to the Project.

Additional Project details are provided in Attachments 1 through 5 of this Certification.

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Attachments:

- 1. Definitions**
- 2. Project Location Maps**
- 3. Project Site Plans**
- 4. Mitigation Documentation**
- 5. CEQA Mitigation Monitoring and Reporting Program**

I. STANDARD CONDITIONS

Pursuant to section 3860 of title 23 of the California Code of Regulations, the following three standard conditions apply to all water quality certification actions:

- A. This Certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to section 13330 of the Water Code and chapter 28, article 6 (commencing with title 23, section 3867), of the California Code of Regulations.
- B. This Certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility and requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent Certification application was filed pursuant to California Code of Regulations title 23, section 3855 subdivision (b), and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
- C. This Certification action is conditioned upon total payment of any fee required under title 23, chapter 28 (commencing with section 3830) of California Code of Regulations and owed by the applicant.

II. GENERAL CONDITIONS

- A. **Term of Certification.** Water Quality Certification No. R9-2013-0192 (Certification) shall expire upon a) the expiration or retraction of the Clean Water Act section 404 (33 U.S.C. §1344) permit issued by the U.S. Army Corps of Engineers for this Project, or b) five (5) years from the date of issuance of this Certification, whichever occurs first.
- B. **Duty to Comply.** The Applicant must comply with all conditions and requirements of this Certification. Any Certification noncompliance constitutes a violation of the Water Code and is grounds for enforcement action or Certification termination, revocation and reissuance, or modification.
- C. **General Waste Discharge Requirements.** The requirements of this Certification are enforceable through Water Quality Order No. 2003-0017-DWQ, *Statewide General Waste Discharge Requirements for Discharges of Dredged or Fill Material that have Received State Water Quality Certification* (Water Quality Order No. 2003-0017-DWQ). This provision shall apply irrespective of whether a) the federal permit for which the Certification was obtained is subsequently retracted or is expired, or b) the Certification is expired. Water Quality Order No. 2003-0017-DWQ is accessible at:

http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/generalorders/gowdr401regulated_projects.pdf.

- D. **Project Conformance with Application.** All water quality protection measures and BMPs described in the application and supplemental information for water quality certification are incorporated by reference into this Certification as if fully stated herein. Notwithstanding any more specific conditions in this Certification, the Applicant shall construct, implement and comply with all water quality protection measures and BMPs described in the application and supplemental information. The conditions within this Certification shall supersede conflicting provisions within the application and supplemental information submitted as part of this Certification action.
- E. **Project Conformance with Water Quality Control Plans or Policies.** Notwithstanding any more specific conditions in this Certification, the Project shall be constructed in a manner consistent with the Basin Plan and any other applicable water quality control plans or policies adopted or approved pursuant to the Porter Cologne Water Quality Act (Division 7, commencing with Water Code Section 13000) or section 303 of the Clean Water Act (33 U.S.C §1313.)
- F. **Project Modification.** The Applicant must submit any changes to the Project, including Project operation, which would have a significant or material effect on the findings, conclusions, or conditions of this Certification, to the San Diego Water for prior review and written approval. If the San Diego Water Board is not notified of a significant change to the Project, it will be considered a violation of this Certification.
- G. **Certification Distribution Posting.** During Project construction, the Applicant must maintain a copy of this Certification at the Project site. This Certification must be available at all times to site personnel and agencies. A copy of this Certification shall also be provided to any contractor or subcontractor performing construction work, and the copy shall remain in their possession at the Project site.
- H. **Inspection and Entry.** The Applicant must allow the San Diego Water Board or the State Water Resources Control Board, and/or their authorized representative(s) (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents as may be required under law, to:
1. Enter upon the Project or Compensatory Mitigation site(s) premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Certification;
 2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Certification;
 3. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Certification; and
 4. Sample or monitor, at reasonable times, for the purposes of assuring Certification compliance, or as otherwise authorized by the Clean Water Act or Water Code, any substances or parameters at any location.

- I. **Enforcement Notification.** In the event of any violation or threatened violation of the conditions of this Certification, the violation or threatened violation shall be subject to any remedies, penalties, process or sanctions as provided for under State law. For purposes of section 401(d) of the Clean Water Act, the applicability of any State law authorizing remedies, penalties, process or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this Certification.
- J. **Certification Actions.** This Certification may be modified, revoked and reissued, or terminated for cause including but not limited to the following:
1. Violation of any term or condition of this Certification;
 2. Monitoring results indicate that continued Project activities could violate water quality objectives or impair the beneficial uses of the Murphy Canyon Creek or its tributaries;
 3. Obtaining this Certification by misrepresentation or failure to disclose fully all relevant facts;
 4. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; and
 5. Incorporation of any new or revised water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act.

The filing of a request by the Applicant for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Certification condition.

- K. **Duty to Provide Information.** The Applicant shall furnish to the San Diego Water Board, within a reasonable time, any information which the San Diego Water Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Certification or to determine compliance with this Certification.
- L. **Property Rights.** This Certification does not convey any property rights of any sort, or any exclusive privilege.

III. CONSTRUCTION BEST MANAGEMENT PRACTICES

- A. **Approvals to Commence Construction.** The Applicant shall not commence Project construction until all necessary federal, state, and local approvals are obtained.
- B. **Personnel Education.** Prior to the start of the Project, and annually thereafter, the Applicant must educate all personnel on the requirements in this Certification, pollution prevention measures, spill response measures, and BMP implementation and maintenance measures.
- C. **Spill Containment Materials.** The Applicant must, at all times, maintain appropriate types and sufficient quantities of materials on-site to contain any spill or inadvertent release of materials that may cause a condition of pollution or nuisance if the materials reach waters of the United States and/or State.
- D. **General Construction Storm Water Permit.** Prior to start of Project construction, the Applicant must, as applicable, obtain coverage under, and comply with, the requirements of State Water Resources Control Board Water Quality Order No. 2009-0009-DWQ, the *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activity*, (General Construction Storm Water Permit) and any reissuance. If Project construction activities do not require coverage under the General Construction Storm Water Permit, the Applicant must develop and implement a runoff management plan (or equivalent construction BMP plan) to prevent the discharge of sediment and other pollutants during construction activities.
- E. **Waste Management.** The Applicant must properly manage, store, treat, and dispose of wastes in accordance with applicable federal, state, and local laws and regulations. Waste management shall be implemented to avoid or minimize exposure of wastes to precipitation or storm water runoff. The storage, handling, treatment, or disposal of waste shall not create conditions of pollution, contamination or nuisance as defined in Water Code section 13050. Upon Project completion, all Project generated debris, building materials, excess material, waste, and trash shall be removed from the Project site(s) for disposal at an authorized landfill or other disposal site in compliance with federal, state and local laws and regulations.
- F. **Waste Management.** Except for a discharge permitted under this Certification, the dumping, deposition, or discharge of trash, rubbish, unset cement or asphalt, concrete, grout, damaged concrete or asphalt, concrete or asphalt spoils, wash water, organic or earthen material, steel, sawdust or other construction debris waste from Project activities directly into waters of the United States and or State, or adjacent to such waters in any manner which may permit its being transported into the waters, is prohibited.
- G. **Downstream Erosion.** Discharges of concentrated flow during construction or after Project completion must not cause downstream erosion or damage to properties or stream habitat.

- H. **Construction Equipment.** All equipment must be washed prior to transport to the Project site and must be free of sediment, debris, and foreign matter. All equipment used in direct contact with surface water shall be steam cleaned prior to use. All equipment using gas, oil, hydraulic fluid, or other petroleum products shall be inspected for leaks prior to use and shall be monitored for leakage. Stationary equipment (e.g., motors, pumps, generator, etc.) shall be positioned over drip pans or other types of containment.
- I. **Process Water.** Water containing mud, silt, or other pollutants from equipment washing or other activities, must not be discharged to waters of the United States and/or State or placed in locations that may be subjected to storm water runoff flows. Pollutants discharged to areas within a stream diversion must be removed at the end of each work day or sooner if rain is predicted.
- J. **Surface Water Diversion.** All surface waters, including ponded waters, must be diverted away from areas of active grading, construction, excavation, vegetation removal, and/or any other activity which may result in a discharge to the receiving water. Diversion activities must not result in the degradation of beneficial uses or exceedance of the receiving water quality objectives. Any temporary dam or other artificial obstruction constructed must only be built from materials such as clean gravel which will cause little or no siltation. Normal flows must be restored to the affected stream immediately upon completion of work at that location.
- K. **Re-vegetation and Stabilization.** All areas that have 14 or more days of inactivity must be stabilized within 14 days of the last activity. The Applicant shall implement and maintain BMPs to prevent erosion of the rough graded areas. After completion of grading, all areas must be re-vegetated with native species appropriate for the area. The re-vegetation palette must not contain any plants listed on the California Invasive Plant Council Invasive Plant Inventory, which can be accessed at <http://www.cal-ipc.org/ip/inventory/weedlist.php>.
- L. **Hazardous Materials.** Except as authorized by this Certification, substances hazardous to aquatic life including, but not limited to, petroleum products, unused cement/concrete, asphalt, and coating materials, must be prevented from contaminating the soil and/or entering waters of the United States and/or State. BMPs must be implemented to prevent such discharges during each Project activity involving hazardous materials.
- M. **Vegetation Removal.** Removal of vegetation must occur by hand, mechanically, or through application of United States Environmental Protection Agency (USEPA) approved herbicides deployed using applicable BMPs to minimize adverse effects to beneficial uses of waters of the United States and/or State. Discharges related to the application of aquatic pesticides within waters of the United States must be done in compliance with State Water Resources Control Board Water Quality Order No. 2004-0009-DWQ, the *Statewide General National Pollution Discharge Elimination System Permit for the Discharge of Aquatic Weed Control in Waters of the United States*, and any subsequent reissuance as applicable.

- N. **Limits of Disturbance.** The Applicant shall clearly define the limits of Project disturbance to waters of the United States and/or State using highly visible markers such as flag markers, construction fencing, or silt barriers prior to commencement of Project construction activities within those areas.
- O. **On-site Qualified Biologist.** The Applicant shall designate an on-site qualified biologist to monitor Project construction activities within or adjacent to waters of the United States and/or State to ensure compliance with the Certification requirements. The biologist shall be given the authority to stop all work on-site if a violation of this Certification occurs or has the potential to occur. Records and field notes of the biologist's activities shall be kept on-site and made available for review upon request by the San Diego Water Board.
- P. **Beneficial Use Protection.** The Applicant must take all necessary measures to protect the beneficial uses of waters of Murphy Canyon Creek, a direct tributary to San Diego River. This Certification requires compliance with all applicable requirements of the Basin Plan. If at any time, an unauthorized discharge to surface waters (including rivers or streams) occurs or monitoring indicates that the Project is violating, or threatens to violate, water quality objectives, the associated Project activities shall cease immediately and the San Diego Water Board shall be notified in accordance with Notification Requirement VII.A of this Certification. Associated Project activities may not resume without approval from the San Diego Water Board.

IV. **POST-CONSTRUCTION BEST MANAGEMENT PRACTICES**

- A. **Post-Construction Discharges.** The Applicant shall not allow post-construction discharges from the Project site to cause or contribute to onsite or off-site erosion or damage to properties or stream habitats.

V. **PROJECT IMPACTS AND COMPENSATORY MITIGATION**

- A. **Project Impact Avoidance and Minimization.** The Project must avoid and minimize adverse impacts to waters of the United States and/or State to the maximum extent practicable.
- B. **Project Impacts and Compensatory Mitigation.** Unavoidable Project impacts to the wetland within Murphy Canyon Creek within the San Diego River Watershed must not exceed the type and magnitude of impacts described in the table below. At a minimum, compensatory mitigation required to offset unavoidable permanent Project impacts to waters of the United States and/or State must be achieved as described in the table below:

	Impacts (acres)	Impacts (linear ft.)	Mitigation for Impacts (acres)	Mitigation Ratio (area mitigated :area impacted)	Mitigation for Impacts (linear ft.)	Mitigation Ratio (linear feet mitigated :linear feet impacted)
Permanent Impacts						
Wetland	0.051	120	0.051 Establishment ¹ 0.051 Enhancement ²	2:1	120 Establishment ¹ 120 Enhancement ²	2:1

1. Wetland establishment credit from the City of San Diego's San Diego River Wetland Creation Site.
2. Wetland enhancement credit from the City of San Diego's Rancho Mission Wetland Enhancement Site.

C. **Compensatory Mitigation Implementation.** The Applicant must accomplish compensatory mitigation through allocation of wetland establishment credit and wetland enhancement credit from the City of San Diego's San Diego River Wetland Creation Site and Rancho Mission Enhancement Site, respectively. The mitigation credits have been allocated to this Project (Attachment 4). San Diego Water Board acceptance of this compensatory mitigation applies only to the Project described in this Certification and must not be construed as approval for other current or future projects that are planning to use additional acreage at the site for mitigation.

VI. MONITORING AND REPORTING REQUIREMENTS

- A. **Representative Monitoring.** Samples and measurements taken for the purpose of monitoring under this Certification shall be representative of the monitored activity.
- B. **Monitoring Reports.** Monitoring results shall be reported to the San Diego Water Board at the intervals specified in section VI of this Certification.
- C. **Monitoring and Reporting Revisions.** The San Diego Water Board may make revisions to the monitoring program at any time during the term of this Certification and may reduce or increase the number of parameters to be monitored, locations monitored, the frequency of monitoring, or the number and size of samples collected.
- D. **Records of Monitoring Information.** Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical techniques or methods used; and

f. The results of such analyses.

H. **Final Project Completion Report.** The Applicant must submit a Final Project Completion Report to the San Diego Water Board **within 30 days of completion of the Project.** The final report must include the following information:

1. Date of construction initiation;
2. Date of construction completion;
3. BMP installation and operational status for the Project;
4. As-built drawings of the Project, no bigger than 11”X17”;
5. A description of each incident of noncompliance during project construction and its cause, the period of the noncompliance including exact dates and times, and how the noncompliance was corrected, including the steps taken to reduce, eliminate, and prevent future noncompliance;
6. Photo documentation of all areas of permanent and temporary impacts, prior to and after project construction. Photo documentation must be conducted in accordance with guidelines posted at:

http://www.waterboards.ca.gov/sandiego/water_issues/programs/401_certification/docs/StreamPhotoDocSOP.pdf

In addition, photo documentation must include Global Positioning System (GPS) coordinates for each of the photo points referenced; and

- I. **Reporting Authority.** The submittal of information required under this Certification, or in response to a suspected violation of any condition of this Certification, is required pursuant to Water Code section 13267 and 13383. Civil liability may be administratively imposed by the San Diego Water Board for failure to submit information pursuant to Water Code sections 13268 or 13385.
- J. **Electronic and Paper Media Documents.** The Applicant must submit all reports and information required under this Certification in both hardcopy (paper) and electronic format. The preferred electronic format for each report submission is one file in PDF format that is also Optical Character Recognition (OCR) capable. All paper and electronic documents submitted to the San Diego Water Board must include the following identification numbers in the header or subject line: Certification No. R9-2013-0192:PIN 8020796.

K. Document Signatory Requirements. All applications, reports, or information submitted to the San Diego Water Board must be signed as follows:

1. For a corporation, by a responsible corporate officer of at least the level of vice president.
2. For a partnership or sole proprietorship, by a general partner or proprietor, respectively.
3. For a municipality, or a state, federal, or other public agency, by either a principal executive officer or ranking elected official.
4. A duly authorized representative may sign applications, reports, or information if:
 - a. The authorization is made in writing by a person described above.
 - b. The authorization specifies either an individual or position having responsibility for the overall operation of the regulated activity.
 - c. The written authorization is submitted to the San Diego Water Board Executive Officer.

If such authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the Project, a new authorization satisfying the above requirements must be submitted to the San Diego Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative.

L. Document Certification Requirements. All applications, reports, or information submitted to the San Diego Water Board must be certified as follows:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

M. Document Submittal Address. The Applicant must submit reports required under this Certification, or other information required by the San Diego Water Board, to:

Executive Officer
California Regional Water Quality Control Board
San Diego Region
Attn: 401 Certification No. R9-2013-0192:PIN 802076
2375 Northside Drive, Suite 100
San Diego, California 92108

VII. NOTIFICATION REQUIREMENTS

- A. **Twenty Four Hour Non-Compliance Reporting.** The Applicant shall report any noncompliance which may endanger health or the environment. Any such information shall be provided orally to the San Diego Water Board within **24 hours** from the time the Applicant becomes aware of the circumstances. A written submission shall also be provided within five days of the time the Applicant becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The San Diego Water Board, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.
- B. **Hazardous Substance Discharge.** Except for a discharge which is in compliance with this Certification, any person who, without regard to intent or negligence, causes or permits any hazardous substance or sewage to be discharged in or on any waters of the State, shall as soon as (a) that person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the County of San Diego, in accordance with California Health and Safety Code section 5411.5 and the California Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State toxic disaster contingency plan adopted pursuant to Government Code Title 2, Division 1, Chapter 7, Article 3.7 (commencing with section 8574.17), and immediately notify the State Water Board or the San Diego Water Board of the discharge. This provision does not require reporting of any discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of section 13271 of the Water Code unless the Applicant is in violation of a Basin Plan prohibition.
- C. **Oil or Petroleum Product Discharge.** Except for a discharge which is in compliance with this Certification, any person who without regard to intent or negligence, causes or permits any oil or petroleum product to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as (a) such person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the California Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State oil spill contingency plan adopted pursuant to Government Code Title 2, Division 1, Chapter 7, Article 3.7 (commencing with section 8574.1). This requirement does not require reporting of any discharge of less than 42 gallons unless the discharge is also required to be reported pursuant to Clean Water Act section 311, or the discharge is in violation of a Basin Plan prohibition.
- D. **Anticipated Noncompliance.** The Applicant shall give advance notice to the San Diego Water Board of any planned changes in the Project or the Compensatory Mitigation project which may result in noncompliance with Certification conditions or requirements.

E. **Transfers.** This Certification is not transferable in its entirety or in part to any person or organization except after notice to the San Diego Water Board in accordance with the following terms:

1. **Transfer of Property Ownership:** The Applicant must notify the San Diego Water Board of any change in ownership of the Project area. Notification of change in ownership must include, but not be limited to, a statement that the Applicant has provided the purchaser with a copy of the Section 401 Water Quality Certification and that the purchaser understands and accepts the certification requirements and the obligation to implement them or be subject to liability for failure to do so; the seller and purchaser must sign and date the notification and provide such notification to the San Diego Water Board **within 10 days of the transfer of ownership.**
2. **Transfer of Mitigation Responsibility:** Any notification of transfer of responsibilities to satisfy the mitigation requirements set forth in this Certification must include a signed statement from an authorized representative of the new party (transferee) demonstrating acceptance and understanding of the responsibility to comply with and fully satisfy the mitigation conditions and agreement that failure to comply with the mitigation conditions and associated requirements may subject the transferee to enforcement by the San Diego Water Board under Water Code section 13385, subdivision (a). Notification of transfer of responsibilities meeting the above conditions must be provided to the San Diego Water Board **within 10 days of the transfer date.**
3. **Transfer of Post-Construction BMP Maintenance Responsibility:** The Applicant assumes responsibility for the inspection and maintenance of all post-construction structural BMPs until such responsibility is legally transferred to another entity. At the time maintenance responsibility for post-construction BMPs is legally transferred the Applicant must submit to the San Diego Water Board a copy of such documentation and must provide the transferee with a copy of a long-term BMP maintenance plan that complies with manufacturer specifications. The Applicant must provide such notification to the San Diego Water Board within **10 days** of the transfer of BMP maintenance responsibility.

Upon properly noticed transfers of responsibility, the transferee assumes responsibility for compliance with this Certification and references in this Certification to the Applicant will be interpreted to refer to the transferee as appropriate. Transfer of responsibility does not necessarily relieve the Applicant of this Certification in the event that a transferee fails to comply.

F. **Discharge Commencement.** The Applicant must notify the San Diego Water Board in writing **at least 5 days prior to** the start of Project construction.

VIII. CALIFORNIA ENVIRONMENTAL QUALITY ACT COMPLIANCE

- A. The City of San Diego is the Lead Agency under the California Environmental Quality Act (CEQA) (Public Resources Code section 21000, et seq.) section 21067, and CEQA Guidelines (California Code of Regulations, title 14, section 15000 et seq.) section 15367, and has filed a Notice of Determination dated August 30, 2004 for the Final Program Environmental Impact Report (FEIR) titled *Canyon Sewer Cleaning and Long-Term Maintenance Program* (State Clearinghouse Number 2002041129). The Lead Agency has determined the Project will have a significant effect on the environment and mitigation measures were made a condition of the Project.
- B. The San Diego Water Board is a Responsible Agency under CEQA (Public Resources Code section 21069; CEQA Guidelines section 15381). The San Diego Water Board has considered the Lead Agency's FEIR and finds that the Project as proposed will have a significant effect on resources within the San Diego Water Board's purview.
- C. The San Diego Water Board has required mitigation measures as a condition of this Certification to avoid or reduce the environmental effects of the Project to resources within the Board's purview to a less than significant level.
- D. The Lead Agency has adopted a mitigation monitoring and reporting program pursuant to Public Resources Code section 21081.6 and CEQA Guidelines section 15097 to ensure that mitigation measures and revisions to the Project identified in the FEIR are implemented. The Mitigation Monitoring and Reporting Program (MMRP) is included and incorporated by reference in Attachment 5 to this Certification. The Applicant shall implement the Lead Agency's MMRP described in the FEIR, as it pertains to resources within the San Diego Water Board's purview. The San Diego Water Board has imposed additional MMRP requirements as specified in section VI of this Certification.
- E. As a Responsible Agency under CEQA, the San Diego Water Board will file a Notice of Determination in accordance with CEQA Guidelines section 15096 subdivision (i).

IX. SAN DIEGO WATER BOARD CONTACT PERSON


Lisa Honma, Environmental Scientist
California Regional Water Quality Control Board, San Diego Region
2375 Northside Drive, Suite 100
San Diego, California 92108
Telephone: (619) 521-3367
Email: Lisa.Honma@waterboards.ca.gov

X. WATER QUALITY CERTIFICATION

I hereby certify that the proposed discharge from the **Murphy Canyon Road Trunk Sewer Manhole Access and Pipe Joint Repair Project** (Certification No. R9-2013-0192) will comply with the applicable provisions of sections 301 ("Effluent Limitations"), 302 ("Water Quality Related Effluent Limitations"), 303 ("Water Quality Standards and Implementation Plans"), 306 ("National Standards of Performance"), and 307 ("Toxic and Pretreatment Effluent Standards") of the Clean Water Act. This discharge is also regulated under State Water Board Order No. 2003-0017-DWQ, "*Statewide General Waste Discharge Requirements for Dredged or Fill Discharges that have Received State Water Quality Certification (General WDRs)*," which requires compliance with all conditions of this Water Quality Certification. Please note that enrollment under Order No. 2003-017-DWQ is conditional and, should new information come to our attention that indicates a water quality problem, the San Diego Water Board may issue individual waste discharge requirements at that time.

Except insofar as may be modified by any preceding conditions, all Certification actions are contingent on (a) the discharge being limited to, and all proposed mitigation being completed in strict compliance with, the applicants' Project description and/or the description in this Certification, and (b) compliance with all applicable requirements of the Basin Plan.

I, David W. Gibson, Executive Officer, do hereby certify the forgoing is a full, true, and correct copy of Certification No. R9-2013-0192 issued on April 21, 2014.



DAVID W. GIBSON
Executive Officer
San Diego Water Board

21 April 2014
Date

ATTACHMENT 1

DEFINITIONS

Activity - when used in reference to a permit means any action, undertaking, or project including, but not limited to, construction, operation, maintenance, repair, modification, and restoration which may result in any discharge to waters of the state.

Buffer - means an upland, wetland, and/or riparian area that protects and/or enhances aquatic resource functions associated with wetlands, rivers, streams, lakes, marine, and estuarine systems from disturbances associated with adjacent land uses.

California Rapid Assessment Method (CRAM) - is a wetland assessment method intended to provide a rapid, scientifically-defensible and repeatable assessment methodology to monitor status and trends in the conditions of wetlands for applications throughout the state. It can also be used to assess the performance of compensatory mitigation projects and restoration projects. CRAM provides an assessment of overall ecological condition in terms of four attributes: landscape context and buffer, hydrology, physical structure and biotic structure. CRAM also includes an assessment of key stressors that may be affecting wetland condition and a "field to PC" data management tool (eCRAM) to ensure consistency and quality of data produced with the method.

Compensatory Mitigation Project - means compensatory mitigation implemented by the Applicant as a requirement of this Certification (i.e., applicant -responsible mitigation), or by a mitigation bank or an in-lieu fee program.

Discharge of dredged material – means any addition of dredged material into, including redeposit of dredged material other than incidental fallback within, the waters of the United States and/or State.

Discharge of fill material – means the addition of fill material into waters of the United States and/or State.

Dredged material – means material that is excavated or dredged from waters of the United States and/or State.

Ecological Success Performance Standards – means observable or measurable physical (including hydrological), chemical, and/or biological attributes that are used to determine if a compensatory mitigation project meets its objectives.

Enhancement – means the manipulation of the physical, chemical, or biological characteristics of an aquatic resource to improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Establishment – means the manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist. Creation results in a gain in aquatic resource area.

Fill material – means any material used for the primary purpose of replacing an aquatic area with dry land or of changing the bottom elevation of a water body.

Isolated wetland – means a wetland with no surface water connection to other aquatic resources.

Mitigation Bank – means a site, or suite of sites, where resources (e.g., wetlands, streams, riparian areas) are restored, established, enhanced, and/or preserved for the purpose of providing mitigation for impacts authorized by this Certification.

Preservation - means the removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment - means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/ historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

Rehabilitation - means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/ historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration - means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

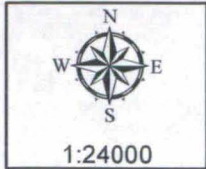
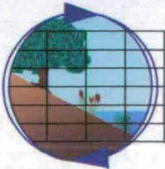
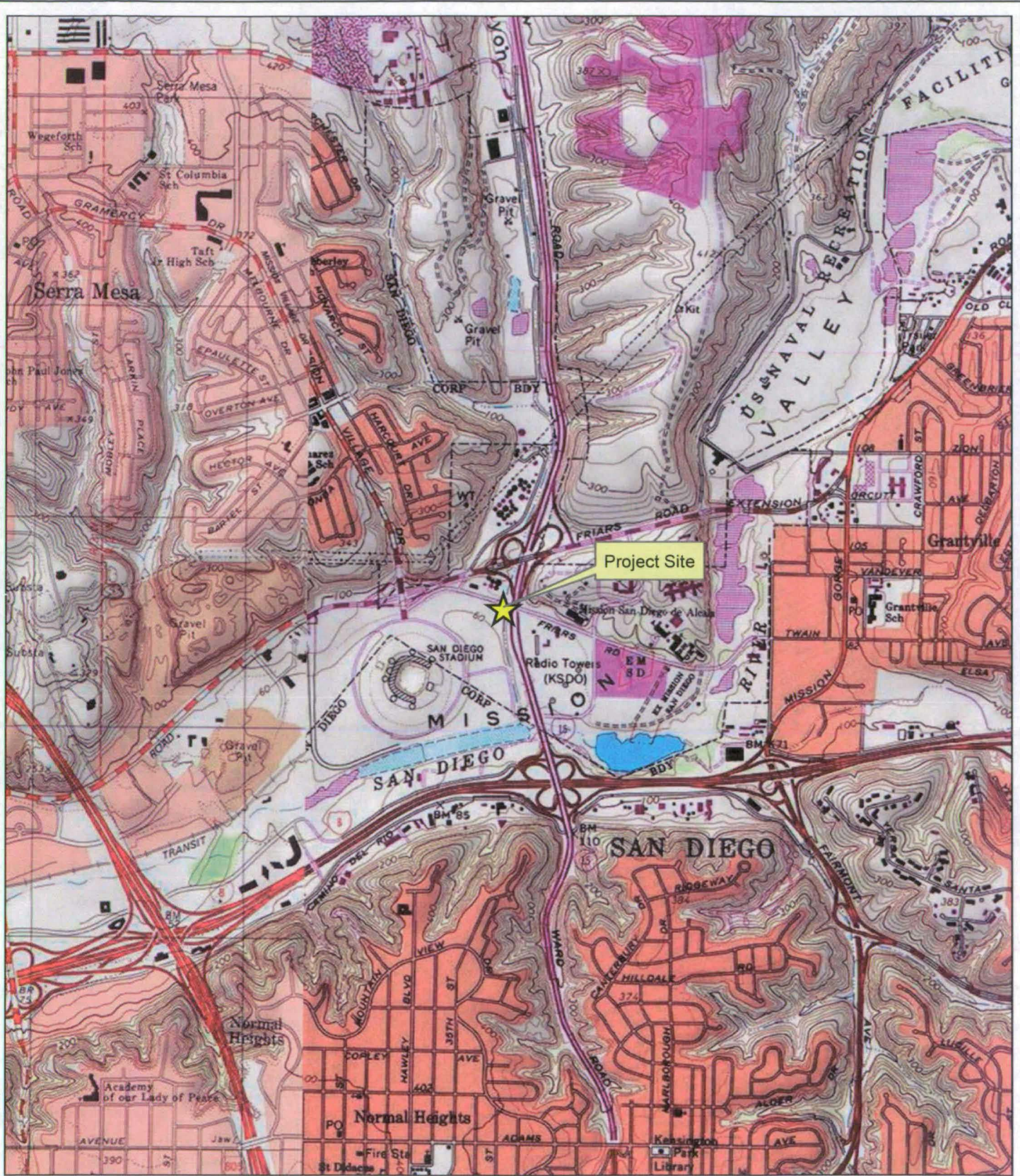
Start of Project Construction - For the purpose of this Certification, "start of Project construction" means to engage in a program of on-site construction, including site clearing, grading, dredging, landfilling, changing equipment, substituting equipment, or even moving the location of equipment specifically designed for a stationary source in preparation for the fabrication, erection or installation of the building components of the stationary source within waters of the United States and/or State.

Uplands - means non-wetland areas that lack any field-based indicators of wetlands or other aquatic conditions. Uplands are generally well-drained and occur above (i.e., up-slope) from nearby aquatic areas. Wetlands can, however, be entirely surrounded by uplands. For example, some natural seeps and constructed stock ponds lack aboveground hydrological connection to other aquatic areas. In the watershed context, uplands comprise the landscape matrix in which aquatic areas form. They are the primary sources of sediment, surface runoff, and associated chemicals that are deposited in aquatic areas or transported through them.

Water quality objectives and other appropriate requirements of state law – means the water quality objectives and beneficial uses as specified in the appropriate water quality control plan(s); the applicable provisions of sections 301, 302, 303, 306, and 307 of the Clean Water Act; and any other appropriate requirement of state law.

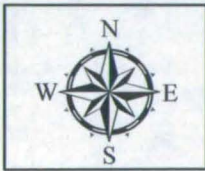
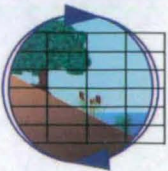
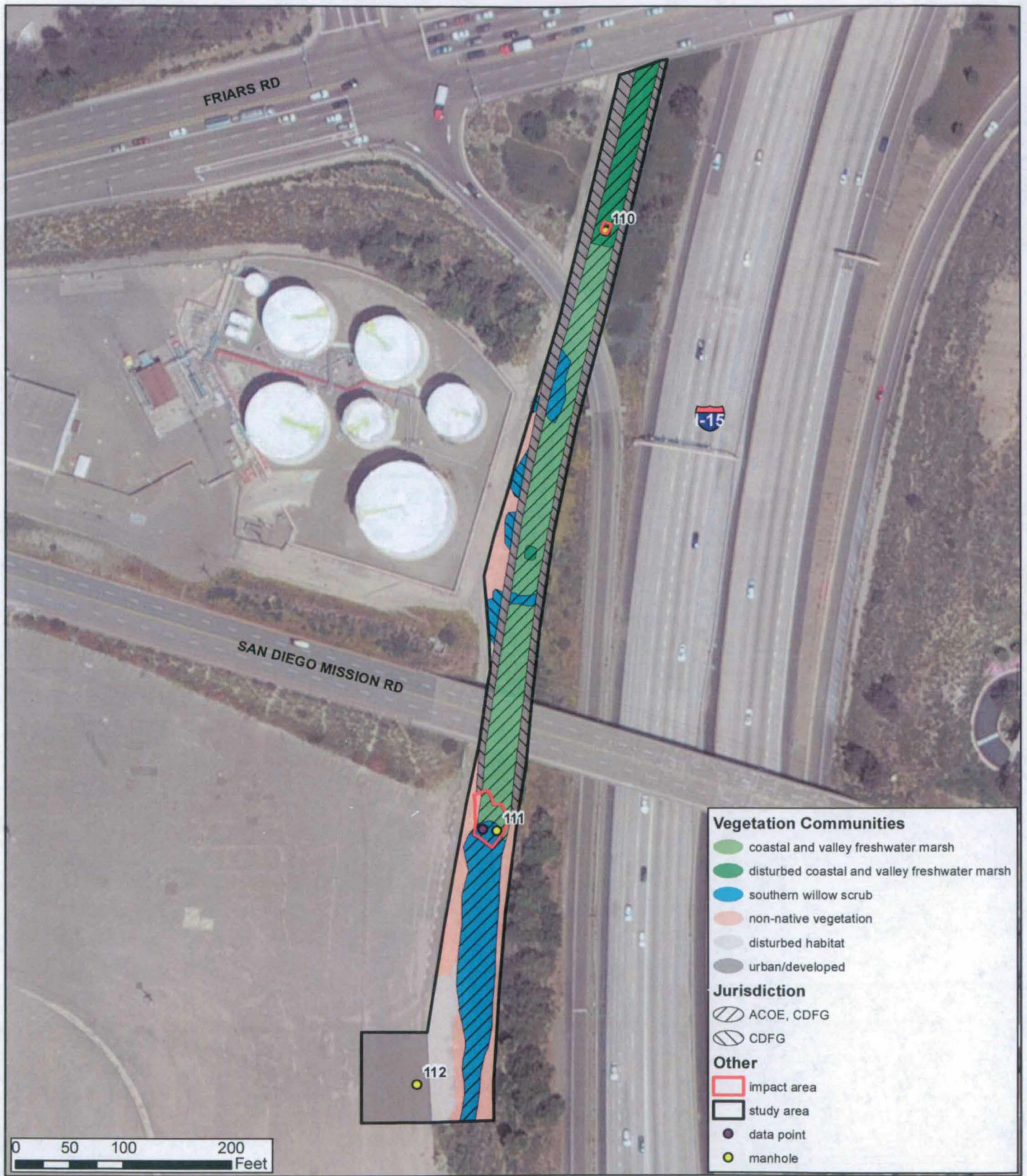
City of San Diego
Murphy Canyon Road Trunk Sewer Manhole Access and Pipe Joint Repair Project
Certification No. R9-2013-0192

**ATTACHMENT 2
PROJECT LOCATION MAPS**



Project Vicinity Map
San Diego Mission Rd. Emergency Dewater Repair Project
Source: USGS 7.5' La Mesa, CA Quadrangle

Figure 1

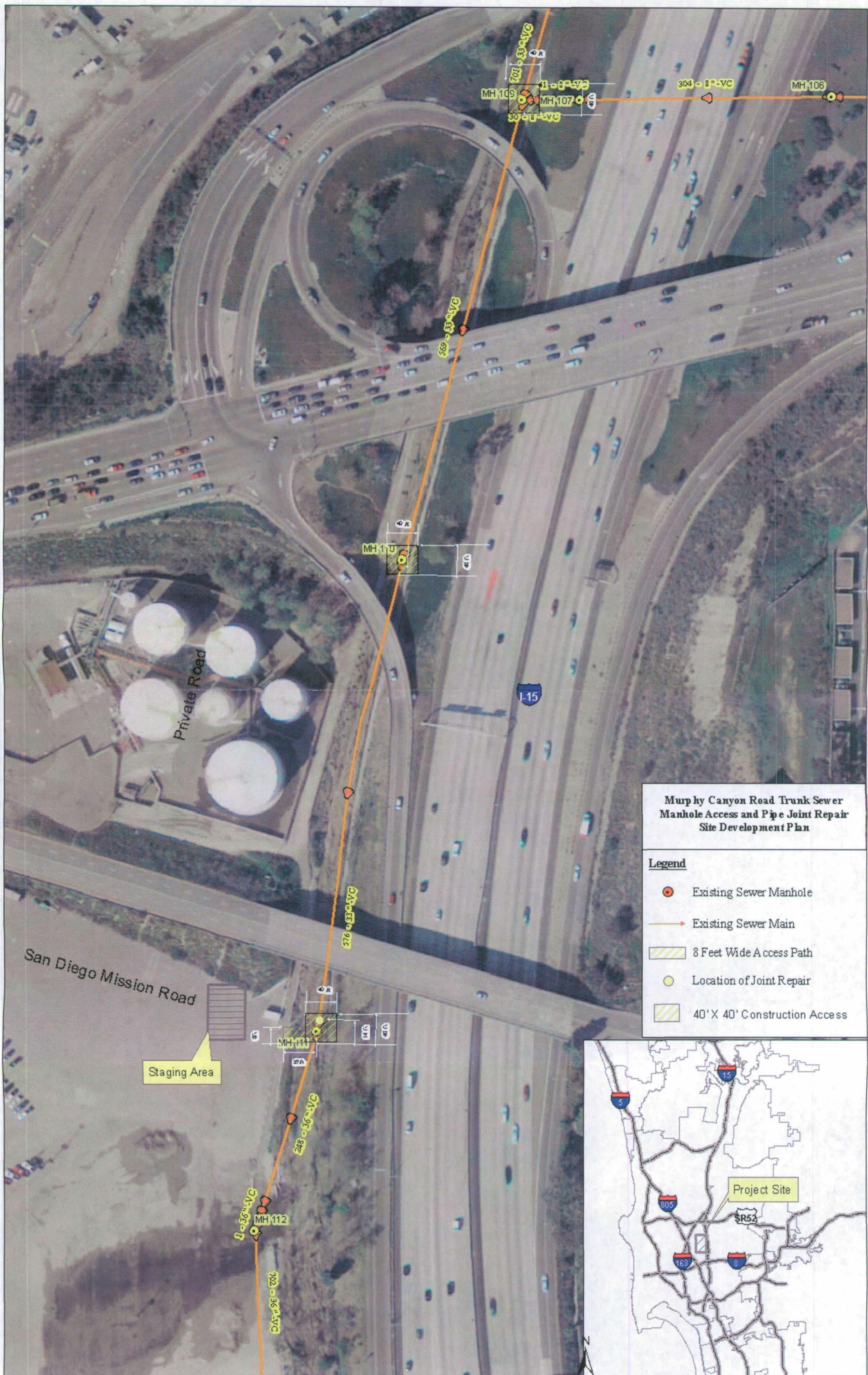


Biological Resources Map
 San Diego Mission Rd. Emergency Sewer Repair Project

Figure 2

City of San Diego
Murphy Canyon Road Trunk Sewer Manhole Access and Pipe Joint Repair Project
Certification No. R9-2013-0192

**ATTACHMENT 3
PROJECT SITE PLANS**



Murphy Canyon Road Trunk Sewer Joint Repair Dewatering Work Area

Description

Practices and methods to remove water from a work area. Dewatering practices should be considered to remove water from the work site in order to proceed with the construction.

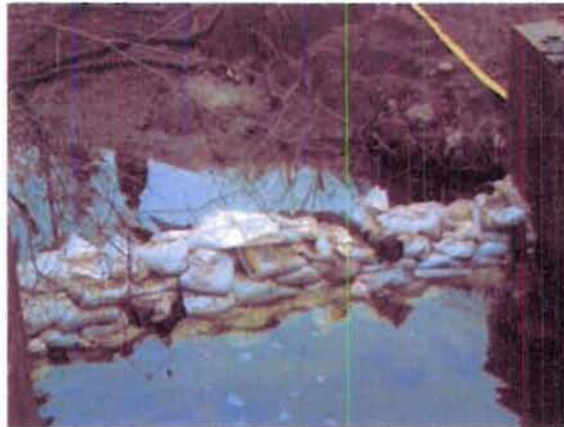
Applicability

This applies to flood control channel activities where working under “dry” conditions is necessary or where erosion and sediment control measures have already been applied and water is interfering with work activities. (“Dry” is a relative state essentially meaning that the work is isolated from flowing water).

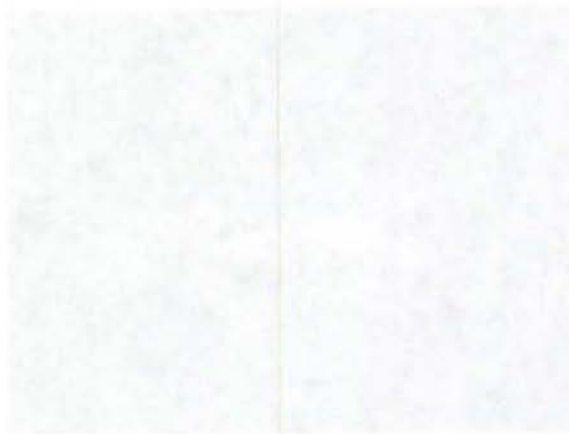
Approach and Standards

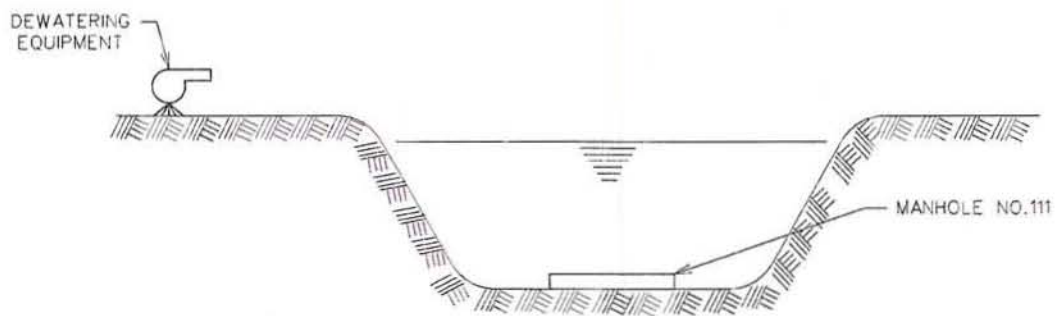
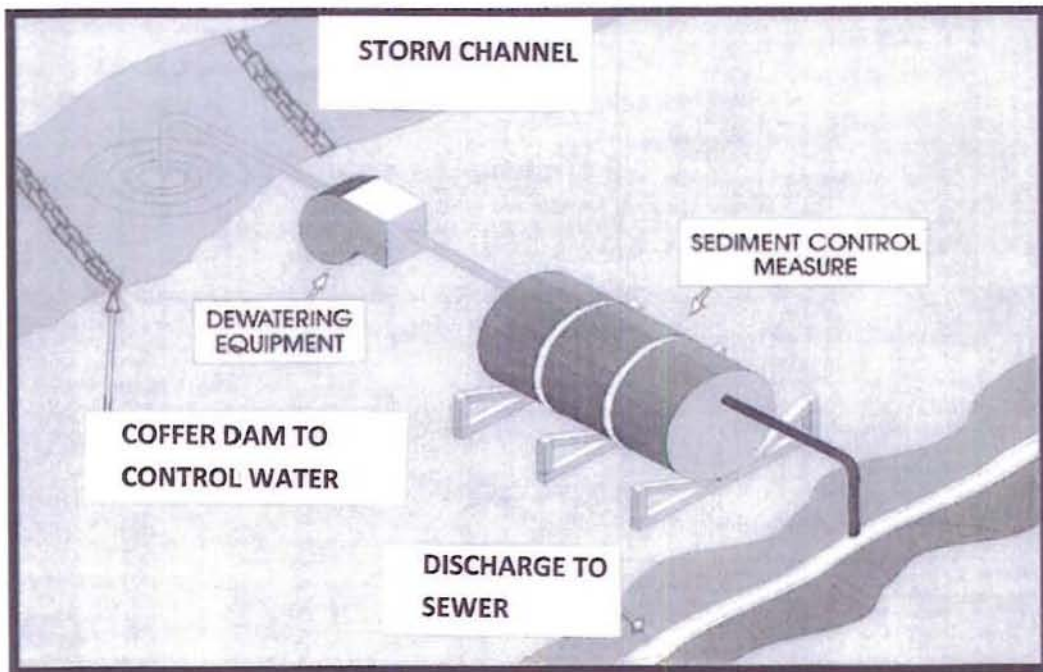
- Site should be dewatered if water is present before repairs are begun.
- Using a Vactor Truck and/or Dewatering Equipment to remove the standing water from the storm channel. Also, using coffer dams, sumps, or water dams to keep water out of the work site so work can be done in dry conditions (See attached Details).
- A high sediment content is expected. Sediment control equipment includes a sediment trap to remove sediment from the dewatering discharges.
- Properly discharging the dewatering material into the sewer system, either nearby sewer or take it to a Sewer Cleaning Residual Unload Facility (SCRUF). SCRUF is a discharge facility for City Vactor Trucks to unload sewer and ground water, sewer in most cases.
- Continue pumping water during construction where water seeps through the coffer dam and sand bags (if any), to keep the area dry.
- Protect diverted water or stored water from getting polluted from construction-related.

Use of Cofferdam or other methods to control water



Coffer dams using nylon bags filled with clay material build across the creek channel upstream of the work area





DEWATER CHANNEL AND KEEP AREA DRY
USING COFFER DAM

**ATTACHMENT 4
MITIGATION DOCUMENTATION**

1. Letter from U.S. Army Corps of Engineers regarding the San Diego River Wetlands Creation Site, dated August 8, 2012
2. Letter from U.S. Army Corps of Engineers regarding the Rancho Mission Enhancement Site, dated July 1, 2013
3. Mitigation Site Usage Report
4. Ledgers of City of San Diego Public Utilities Department Mitigation Projects
 - a. Camino del Rio North – San Diego River Creation (beginning page 1 of 26)
 - b. Rancho Mission Enhancement (beginning page 17 of 26)



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY

LOS ANGELES DISTRICT CORPS OF ENGINEERS
REGULATORY DIVISION
CARLSBAD FIELD OFFICE
6010 HIDDEN VALLEY ROAD, SUITE 105
CARLSBAD, CA 92011

August 8, 2012

Regulatory Division

City of San Diego
Department of Public Utilities
Attn: Keli Balo
9192 Topaz Way
San Diego, California, 92123

Dear Ms. Balo:

This letter is in reference to your request for the United States (U.S.) Army Corps of Engineers (Corps) authorization to cease mitigation maintenance and monitoring at the San Diego River Wetlands Creation Mitigation Site (Mitigation Site) formerly known as the Camino Del Rio North Site. The Mitigation Site is located adjacent to the San Diego River in the eastern portion of Mission Valley, north of Camino Del Rio North in San Diego County, California.

The "*Conceptual Mitigation Plan for the Canyon Sewer Projects within the San Diego Watershed-Camino Del Rio North Site*," prepared by Merkel and Associated, Inc was approved in April 2004 as mitigation for various sewer repair, replacement, and access projects implemented by the City of San Diego. Specifically, the following Corps permits have been mitigated at the San Diego River Wetlands Creation Mitigation Site:

60th Street Pipe Relocation/Permanent Access (SPL- 2003-01653-TCD)
Lake Murray Trunk Sewer and Permanent Access Path (SPL- 2004-01569-TCD)
City of San Diego Various Sewer Repairs (SPL- 2005-00006-TCD)
Junipero Serra-Mission Gorge Emergency Repair (SPL-2002-01455-TCD)
Junipero Serra-Superior Ready Mix Emergency Repair (SPL- 2002-00496-TCD)

Upon review of the final monitoring report dated July 20, 2011 and the wetland delineation report dated May 22, 2012 you have successfully created 3.50 acres of Corps jurisdictional wetlands. Based on our most recent (2011) mitigation summary report submitted for this site, approximately 2.14 acres of wetland waters of the U.S. were required to be mitigated at this site. Therefore, we have determined that you have met all performance standards prescribed in the mitigation plan and you have successfully fulfilled your requirements of providing compensatory mitigation for the projects listed above. No further monitoring is required.

The Corps understands that the Mitigation Site is designated as City of San Diego Open Space lands (preserve areas) within the Multiple Species Conservation Program (MSCP) and is currently in the process of being included in the City of San Diego's Multi-Habitat Planning Area (MHPA). This Mitigation site will also be managed in perpetuity by the City of San Diego Park and Recreation Department. Long-term management responsibilities will be consistent with the MSCP and MHPA and will include installation and maintenance of fencing and signage, and the removal of transient camps, trash, debris, and invasive species.

Thank you for participating in our regulatory program. If you have any questions, please contact Lanika Cervantes of my staff at 760-602-4838 or via e-mail at Lanika.L.Cervantes@usace.army.mil.

Please be advised that you can now comment on your experience with Regulatory Division by accessing the Corps web-based customer survey form at: <http://per2.nwp.usace.army.mil/survey.html>.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert Smith".

Robert Smith
Senior Project Manager
South Coast Branch



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT CORPS OF ENGINEERS
REGULATORY DIVISION, CARLSBAD FIELD OFFICE
5900 LA PLACE COURT, SUITE 100
CARLSBAD, CALIFORNIA 92008

July 01, 2013

Regulatory Division

Ms. Keli Balo, Project Officer I
City of San Diego
Public Utilities Department
9192 Topaz Way
San Diego, California 92123

Dear Ms. Balo:

This letter is in reference to your Department of the Army Permit (File No. SPL-2005-00006-TCD), dated July 26, 2005, to discharge fill into waters of the U.S., in association with numerous City of San Diego, Public Utilities Department (formerly the Metropolitan Wastewater Department) emergency sewer maintenance projects. The emergency sewer maintenance projects were performed between 2002 and 2003 at several locations throughout the City of San Diego, San Diego County, California.

Pursuant to Special Condition number 3 of your permit dated July 26, 2005, you were required to implement the habitat mitigation and monitoring plan entitled, *Conceptual Wetlands Enhancement Plan for Rancho Mission Canyon*, dated November 2005, and prepared by Dudek and Associates, Inc.

Following submittal of the most recent monitoring report dated February 2013 and a site inspection on May 8, 2013, I have determined the required compensatory mitigation project has met all performance standards as listed on pages 40-41 of the above habitat mitigation and monitoring plan. No further monitoring is required.

This letter does not relieve the Permittee of any requirements associated with the long-term management plan (a description of how the compensatory mitigation project will be managed after performance standards have been achieved to ensure the long-term sustainability of the resource, including long-term financing mechanisms and the party responsible for long-term management) included in the above habitat mitigation and monitoring plan.

Similarly, this letter does not relieve the Permittee of any requirements associated with any long-term protection requirements of permit SPL-2005-00006-TCD consisting of real estate instruments, such as a conservation easement, transfer of title, restrictive covenant, or (for government property) a federal facility management plan or integrated natural resources management plan.

Thank you for participating in our regulatory program. If you have any questions, please contact me at 760-602-4836 or via e-mail at Meris.Bantilan-Smith@usace.army.mil.

Please be advised that you can now comment on your experience with Regulatory Division by accessing the Corps web-based customer survey form at:
<http://per2.nwp.usace.army.mil/survey.html>.

"Building Strong and Taking Care of People"

Sincerely,

A handwritten signature in cursive script that reads "Meris Bantilan-Smith".

Meris Bantilan-Smith
Senior Project Manager
South Coast Branch



Mitigation Site Usage Report

Friday, March 14, 2014

7:53:36 AM

Mitigation Site Name	Mitigation Type	Site Size (Acres)	Acres Used	Balance (Acres)
Camino del Rio North - San Diego River Creation	Wetland Creation	3.43	2.1738	1.2562
Canyon View (Penasquitos Upland)	Upland Restoration	7.38	1.445	5.935
Central Tecolote Enhancement/Mitigation	Upland Restoration	3.05	1.174	1.876
Central Tecolote Enhancement/Mitigation	Wetland Enhancement	7.95	2.6356	5.3144
El Cuervo Norte	Wetland Creation	0.72	0.637	0.083
El Cuervo Norte	Wetland Enhancement	0.68	0.669	0.011
El Rancho (Penasquitos Enhancement)	Wetland Enhancement	5.53	3.7548	1.7752
Lake Murray	Wetland Enhancement	2.5	1.556	0.944
Lake Murray	Upland Restoration	5.2	5.0046	0.1954
Los Penasquitos North	Upland Restoration	1.03	1.03	0
Los Penasquitos North	Wetland Creation	3.8	3.5974	0.2026
Marron Valley Cornerstone Lands Conservation Ba	Upland Bank	7.545	6.883	0.662
Otay Mesa Mitigation Bank	Upland Bank	13.24	1.754	11.486
Penasquitos Eucalyptus Removal	Wetland Enhancement	0.31	0.31	0
Rancho Mission Enhancement	Wetland Enhancement	8.74	2.1386	6.6014
Rose Canyon Wetland and Upland	Wetland Enhancement	0.61	0.35	0.26
Rose Canyon Wetland and Upland	Upland Restoration	5.03	3.154	1.876
Rose Canyon Wetland and Upland	Wetland Creation	5.05	3.4018	1.6482
San Clemente Wetland and Upland	Wetland Creation	2.86	2.064	0.796
San Clemente Wetland and Upland	Upland Restoration	2.81	2.088	0.722
Tecolote - Tree of Heaven removal	Wetland Enhancement	0.25	0.25	0
Tecolote Canyon Wetland and Upland	Wetland Creation	1.61	1.465	0.145
Tecolote Canyon Wetland and Upland	Upland Restoration	3.37	2.9258	0.4442
TOTALS		92.695	50.4614	42.2336



City of San Diego Public Utilities Department Mitigation Projects



Camino del Rio North - San Diego River Creation

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
wetland					
15 West and Elanus	Wetland Creation	SWS	0.05	Off-site in watershed	12/19/2003
32nd Street - Huckleberry LT	Wetland Creation	NVC	0.009	Off-site out of watershed	1/1/2010
32nd Street - Huckleberry LT	Wetland Creation	DWET	0.04	Off-site out of watershed	1/1/2010
54th & Maisel	Wetland Creation	FM	0.008	Off-site in watershed	7/2/2001
60th Street Pipe Relocation/Permanent Access	Wetland Creation	DWET	0.005	Off-site in watershed	
Alvarado Court Emergency Sewer Repair	Wetland Creation	FM	0.08	Off-site in watershed	10/5/1998
Alvarado Court Emergency Sewer Repair	Wetland Creation	SWS	0.016	Off-site in watershed	10/5/1998
Alvarado Court Sewer Crossing	Wetland Creation	NVC	0.002	Off-site in watershed	
Alvarado Court Sewer Crossing	Wetland Creation	SWS	0.005	Off-site in watershed	
Alvarado LT	Wetland Creation	DWET	0.01	Off-site in watershed	
Alvarado LT	Wetland Creation	MFS	0.01	Off-site in watershed	
Alvarado Trunk Sewer	Wetland Creation	DWET	0.022	Off-site in watershed	
Buchanan	Wetland Creation	DWET	0.322	Off-site in watershed	3/11/2002
Buchanan	Wetland Creation	SWS	0.0108	Off-site in watershed	3/11/2002
Buchanan Group Job 689	Wetland Creation	NVC	0.009	Off-site in watershed	
Buchanan LT	Wetland Creation	DWET	0.06	Off-site in watershed	1/1/2004
Buchanan Sewer Blockage Emergency	Wetland Creation	SWS	0.017	Off-site in watershed	12/2/2013
Chollas Dam Vegetation Removal	Wetland Creation	FM	0.022	Off-site out of watershed	1/22/2013
Chollas Exposed Water Main Repair	Wetland Creation	RS	0.014	Off-site out of watershed	8/30/2011
Dove Canyon Emergency Repair	Wetland Creation	NVC	0.001	Off-site in watershed	10/22/2010

Camino del Rio North - San Diego River Creation

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Elanus & Murray Canyons (I-15 & Clairemont Mesa Bl	Wetland Creation	SWS	0.007	Off-site in watershed	12/11/2002
Elanus (I-15 & Clairemont Mesa Blvd) LT	Wetland Creation	EW	0.005	Off-site in watershed	
Euclid & Menlo (3343 Menlo Ave Spalsh Apron	Wetland Creation	NVC	0.004	Off-site out of watershed	3/8/2004
Euclid & Menlo (47th & Thorn Sewer Maint & Emerg)	Wetland Creation	DWET	0.08	Off-site out of watershed	2/1/2004
Federal & Chollas	Wetland Creation	DWET	0.0008	Off-site out of watershed	10/22/2002
Fox Canyon (University & 49th) Emergency Repair	Wetland Creation	NVC	0.002	Off-site out of watershed	10/29/2007
Hopkins	Wetland Creation	DWET	0.02	Off-site out of watershed	3/17/2004
Hopkins (Calle Abajo Emergency)	Wetland Creation	NVC	0.002	Off-site out of watershed	4/3/2002
Huckleberry (32nd St Canyon Emergency Maintenance)	Wetland Creation	DWET	0.04	Off-site out of watershed	7/21/2003
I-15 & Adams	Wetland Creation	EW	0.004	Off-site in watershed	5/6/2004
Junipero Serra (Jackson/Mission Gorge Emergency)	Wetland Creation	SWS	0.01	Off-site in watershed	11/13/2002
Junipero Serra (Mission Gorge Emergency Repair)	Wetland Creation	SWS	0.03	Off-site in watershed	12/11/2001
Junipero Serra (Superior Ready Mix Emergency Repai	Wetland Creation	SCWRF	0.09	Off-site in watershed	1/26/2002
Junipero Serra (Superior Ready Mix Emergency Repai	Wetland Creation	SWS	0.3	Off-site in watershed	1/26/2002
Lake Murray Emergency Cleaning	Wetland Creation	SWS	0.01	Off-site in watershed	12/1/2002
Lake Murray Trunk Sewer and Permanent Access Path	Wetland Creation	FM	0.07	Off-site in watershed	
Lake Murray Trunk Sewer and Permanent Access Path	Wetland Creation	SWS	0.2	Off-site in watershed	
Lexington Long-Term Access	Wetland Creation	NVC	0.08	Off-site out of watershed	
Market & Euclid (MH 88 Repair at Encanto Creek)	Wetland Creation	SWS	0.003	Off-site out of watershed	10/22/2009
Mission Center Canyon B	Wetland Creation	RS	0.025	Off-site in watershed	1/1/2011
Mission Center Canyon B	Wetland Creation	DWET	0.014	Off-site in watershed	1/1/2011
Mission Center Canyon B	Wetland Creation	NVC	0.035	Off-site in watershed	1/1/2011
Mission Center Canyon B	Wetland Creation	EW	0.02	Off-site in watershed	1/1/2011
Mission Center Canyon Emergency Sewer Repair	Wetland Creation	FM	0.023	Off-site in watershed	3/10/2010

Camino del Rio North - San Diego River Creation

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Mission Center Canyon Emergency Sewer Repair	Wetland Creation	SWS	0.004	Off-site in watershed	3/10/2010
Mission Center Rd. (Kearny Mesa)	Wetland Creation	SWS	0.007	Off-site in watershed	1/13/2002
Murphy Canyon TS Access and Repair	Wetland Creation	FM	0.051	Off-site in watershed	
Norfolk (Fairmont & Montezuma)	Wetland Creation	SWS	0.003	Off-site in watershed	4/22/2002
Norfolk LT	Wetland Creation	NVC	0.005	Off-site in watershed	7/1/2004
Otay Valley TS Pipe Protection	Wetland Creation	NVC	0.018	Off-site out of watershed	9/16/2013
Presidio (Palm Cyn) GJ665	Wetland Creation	NVC	0.0137	Off-site in watershed	
Presidio (Palm Cyn) GJ665	Wetland Creation	RS	0.165	Off-site in watershed	
Rancho Mission (Mission Gorge Canyon, Conestoga Co)	Wetland Creation	DWET	0.005	Off-site in watershed	2/7/2002
Rancho Mission LT	Wetland Creation	NVC	0.007	Off-site in watershed	11/12/2013
Rancho Mission LT	Wetland Creation	SWS	0.007	Off-site in watershed	11/12/2013
San Diego Mission Rd Emergency	Wetland Creation	SWS	0.01	Off-site in watershed	7/9/2011
San Diego Mission Rd Emergency	Wetland Creation	FM	0.01	Off-site in watershed	7/9/2011
Shepherd	Wetland Creation	SWS	0.01	Off-site in watershed	2/1/2003
Shepherd LT	Wetland Creation	RW	0.03	Off-site in watershed	
Shepherd LT	Wetland Creation	DWET	0.015	Off-site in watershed	
Shepherd LT	Wetland Creation	RS	0.02	Off-site in watershed	
South Chollas LTA	Wetland Creation	MFS	0.0015	Off-site out of watershed	
Valencia Canyon Emergency Repair & Maintenance	Wetland Creation	MFS	0.004	Off-site out of watershed	1/25/2003

Total Mitigation Acres: 2.1738 acres

Canyon View (Penasquitos Upland)

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
upland					
Lopez Canyon LT	Upland Restoration	DCSS	0.3	In-canyon	

Canyon View (Penasquitos Upland)

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Lopez Canyon LT	Upland Restoration	NNG	0.013	In-canyon	
Lopez Emergency Cleaning	Upland Restoration	SMC	0.01	In-canyon	2/13/2005
Lopez Emergency Cleaning	Upland Restoration	NNG	0.05	In-canyon	2/13/2005
Lopez Emergency Cleaning	Upland Restoration	DCSS	0.51	In-canyon	2/13/2005
Lopez Emergency Cleaning	Upland Restoration	SOC	0.02	In-canyon	2/13/2005
Lopez MH 102 Emergency	Upland Restoration	DCSS	0.022	In-canyon	12/18/2009
Penasquitos Views Trunk Sewer	Upland Restoration	DCSS	0.52	In-canyon	
Total Mitigation Acres:			1.445 acres		

Central Tecolote Enhancement/Mitigation

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
upland					
East Tecolote Canyon Pipe Encasemt Protection Proj	Upland Restoration	NNG	0.02	In-canyon	10/4/2010
East Tecolote Canyon Pipe Encasemt Protection Proj	Upland Restoration	NG	0.002	In-canyon	10/4/2010
East Tecolote Canyon Pipe Encasemt Protection Proj	Upland Restoration	CLOW	0.022	In-canyon	10/4/2010
Tecolote LT	Upland Restoration	SOC	0.14	In-canyon	
Tecolote LT	Upland Restoration	SMC	0.05	In-canyon	
Tecolote LT	Upland Restoration	DCSS	0.77	In-canyon	
Tecolote LT	Upland Restoration	POS	0.09	In-canyon	
Tecolote LT	Upland Restoration	CLOW	0.06	In-canyon	
Tecolote LT	Upland Restoration	MSS	0.02	In-canyon	
Total Mitigation Acres:			1.174 acres		

wetland

East Tecolote (East Clairemont)	Wetland Enhancement	SRF	0.008	In-canyon	1/8/2002
East Tecolote (East Clairemont)	Wetland Enhancement	SWS	0.0001	In-canyon	1/8/2002

Central Tecolote Enhancement/Mitigation

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
East Tecolote Canyon Pipe Encasemt Protection Proj	Wetland Enhancement	OW	0.023	In-canyon	10/4/2010
East Tecolote Canyon Pipe Encasemt Protection Proj	Wetland Enhancement	SWS	0.036	In-canyon	10/4/2010
East Tecolote Canyon Pipe Encasemt Protection Proj	Wetland Enhancement	SRF	0.06	In-canyon	10/4/2010
East Tecolote Emergency MH 218	Wetland Enhancement	SRF	0.096	In-canyon	2/8/2010
East Tecolote Manholes 223 and 224 Emergency	Wetland Enhancement	FM	0.039	In-canyon	12/16/2009
East Tecolote Manholes 223 and 224 Emergency	Wetland Enhancement	SRF	0.068	In-canyon	12/16/2009
East Tecolote Manholes 223 and 224 Emergency	Wetland Enhancement	OW	0.015	In-canyon	12/16/2009
East Tecolote Manholes 223 and 224 Emergency	Wetland Enhancement	SWS	0.033	In-canyon	12/16/2009
Park Mesa Way	Wetland Enhancement	SWS	0.15	In-canyon	1/13/2000
Tecolote (including Mt. Elbrus)	Wetland Enhancement	SWS	0.13	In-canyon	11/18/2002
Tecolote (including Mt. Elbrus)	Wetland Enhancement	SCLORF	0.4	In-canyon	11/18/2002
Tecolote Emergency Pipe Repair (Crossing)	Wetland Enhancement	SCLORF	0.004	In-canyon	12/13/2004
Tecolote Emergency Pipe Repair (Crossing)	Wetland Enhancement	EW	0.002	In-canyon	12/13/2004
Tecolote Emergency Pipe Repair (Crossing)	Wetland Enhancement	SWS	0.008	In-canyon	12/13/2004
Tecolote LT	Wetland Enhancement	SWS	0.03	In-canyon	
Tecolote LT	Wetland Enhancement	SRF	1.4	In-canyon	
Tecolote LT	Wetland Enhancement	MFS	0.01	In-canyon	
Tecolote LT	Wetland Enhancement	NVC	0.02	In-canyon	
Tecolote MH 101 Emergency	Wetland Enhancement	MFS	0.0005	In-canyon	4/5/2010
Tecolote Mt. Ashmun Pipe Protection Emergency	Wetland Enhancement	NVC	0.007	In-canyon	1/17/2008
Tecolote Mt. Ashmun Pipe Protection Emergency	Wetland Enhancement	NVC	0.001	In-canyon	1/17/2008
Tecolote Mt. Ashmun Pipe Protection Emergency	Wetland Enhancement	RF	0.02	In-canyon	1/17/2008
Tecolote Mt. Ashmun Pipe Protection Erosion Contro	Wetland Enhancement	SWS	0.001	In-canyon	9/9/2009
Tecolote Mt. Ashmun Pipe Protection Erosion Contro	Wetland Enhancement	RF	0.004	In-canyon	9/9/2009

Central Tecolote Enhancement/Mitigation

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Tecolote Pipe Repair Near Manhole 346	Wetland Enhancement	SRF	0.07	In-canyon	8/17/2009

Total Mitigation Acres: 2.6356 acres

El Cuervo Norte

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
wetland					
Acuna	Wetland Creation	MFS	0.002	Off-site in watershed	3/11/2002
Acuna	Wetland Enhancement	DWET	0.04	Off-site in watershed	3/11/2002
Acuna	Wetland Creation	DWET	0.04	Off-site in watershed	3/11/2002
Acuna	Wetland Creation	SWS	0.08	Off-site in watershed	3/11/2002
Acuna	Wetland Enhancement	MFS	0.002	Off-site in watershed	3/11/2002
Acuna	Wetland Enhancement	SWS	0.08	Off-site in watershed	3/11/2002
Acuna Street Emergency	Wetland Creation	SWS	0.04	Off-site in watershed	7/6/1998
Acuna Street Emergency	Wetland Enhancement	SWS	0.04	Off-site in watershed	7/6/1998
Penasquitos Bluffs (Finger Canyon Emergency)	Wetland Enhancement	CVFM	0.06	In-canyon	11/1/2000
Penasquitos Bluffs (Finger Canyon Emergency)	Wetland Creation	CVFM	0.06	Off-site in watershed	11/1/2000
Penasquitos Bluffs (Finger Canyon Emergency)	Wetland Enhancement	SWS	0.02	In-canyon	11/1/2000
Penasquitos Bluffs (Finger Canyon Emergency)	Wetland Creation	SWS	0.02	Off-site in watershed	11/1/2000
San Clemente (Emergency Repairs Combined)	Wetland Enhancement	MFS	0.02	Off-site in watershed	9/1/2001
San Clemente (Emergency Repairs Combined)	Wetland Enhancement	RW	0.104	Off-site in watershed	9/1/2001
San Clemente (Emergency Repairs Combined)	Wetland Creation	MFS	0.02	Off-site in watershed	9/1/2001
San Clemente (Emergency Repairs Combined)	Wetland Creation	SWS	0.003	Off-site in watershed	9/1/2001
San Clemente (Emergency Repairs Combined)	Wetland Creation	RW	0.052	Off-site in watershed	9/1/2001
San Clemente (Emergency Repairs Combined)	Wetland Enhancement	SWS	0.003	Off-site in watershed	9/1/2001
Stevenson	Wetland Enhancement	MFS	0.02	Off-site in watershed	8/8/2001

El Cuervo Norte

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Stevenson	Wetland Creation	MFS	0.02	Off-site in watershed	8/8/2001
Stevenson	Wetland Creation	SWS	0.28	Off-site in watershed	8/8/2001
Stevenson	Wetland Enhancement	SWS	0.28	Off-site in watershed	8/8/2001
Torreyana Sewer Repair	Wetland Creation	NVC	0.02	Off-site in watershed	10/1/2001
Total Mitigation Acres:		1.306 acres			

El Rancho (Penasquitos Enhancement)

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
wetland					
Acuna LT	Wetland Enhancement	DWET	0.01	Off-site in watershed	2/1/2005
Balboa Terrace Trunk Sewer Replacement	Wetland Enhancement	SCLORF	0.006	Off-site in watershed	9/16/2013
Balboa Terrace Trunk Sewer Replacement	Wetland Enhancement	SWS	0.064	Off-site in watershed	9/16/2013
Balboa Terrace Trunk Sewer Replacement	Wetland Enhancement	FM	0.04	Off-site in watershed	9/16/2013
Balboa Terrace Trunk Sewer Replacement	Wetland Enhancement	MFS	0.022	Off-site in watershed	9/16/2013
Balboa Terrace Trunk Sewer Replacement	Wetland Enhancement	NVC	0.014	Off-site in watershed	9/16/2013
Balboa Terrace Trunk Sewer Replacement	Wetland Enhancement	DWET	0.107	Off-site in watershed	9/16/2013
Black Mountain Road Finger Canyon	Wetland Enhancement	FM	0.006	In-canyon	4/4/2003
Carmel Valley Rd Emergency Water Break	Wetland Enhancement	RS	0.052	Off-site in watershed	10/22/2010
Carmel Valley Rd Emergency Water Break	Wetland Enhancement	SWS	0.016	Off-site in watershed	10/22/2010
Carroll and Mesa Rim	Wetland Enhancement	SCLORF	0.2	Off-site in watershed	6/2/2003
Carroll and Mesa Rim	Wetland Enhancement	SWS	0.15	Off-site in watershed	6/2/2003
Carroll Canyon Emergency Sewer Repair	Wetland Enhancement	SAWRF	0.06	Off-site in watershed	2/26/2010
Carroll Canyon Emergency Sewer Repair	Wetland Enhancement	NVC	0.04	Off-site in watershed	2/26/2010
Gesner/Huron	Wetland Enhancement	RW	0.11	Off-site in watershed	8/1/1998
I-5/SR-52 Maintenance Project	Wetland Enhancement	SWS	0.03	Off-site in watershed	

El Rancho (Penasquitos Enhancement)

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Lopez Canyon LT	Wetland Enhancement	RW	0.01	In-canyon	
Lopez Canyon LT	Wetland Enhancement	NVC	0.01	In-canyon	
Lopez Canyon LT	Wetland Enhancement	SWS	0.03	In-canyon	
Lopez Canyon LT MH 13 Access	Wetland Enhancement	AM	0.3	In-canyon	9/26/2013
Lopez Emergency Cleaning	Wetland Enhancement	RF	0.008	In-canyon	2/13/2005
Lopez Emergency Cleaning	Wetland Enhancement	SWS	0.08	In-canyon	2/13/2005
Lopez Emergency Cleaning	Wetland Enhancement	EW	0.001	In-canyon	2/13/2005
Lopez Emergency Cleaning	Wetland Enhancement	MFS	0.04	In-canyon	2/13/2005
Lower Rose Canyon Emergency Repairs (MH 15)	Wetland Enhancement	SWS	0.32	Off-site in watershed	2/8/2005
Middle Rose Cyn MH 160 Emergency	Wetland Enhancement	SWS	0.02	Off-site in watershed	11/17/2011
Monte Verde Sewer Improvements	Wetland Enhancement	SRF	0.08	Off-site in watershed	1/1/2010
Old Rose Canyon Sewer Relocation Project	Wetland Enhancement	SWS	0.04	Off-site in watershed	2/8/2011
Old Rose Canyon Sewer Relocation Project	Wetland Enhancement	MFS	0.007	Off-site in watershed	2/8/2011
Old Rose Canyon Sewer Relocation Project	Wetland Enhancement	FM	0.002	Off-site in watershed	2/8/2011
Park Mesa LT	Wetland Enhancement	SWS	0.035	Off-site in watershed	1/11/2011
Penasquitos Bluffs LT	Wetland Enhancement	AM	0.014	Off-site in watershed	
Penasquitos Bluffs LT	Wetland Enhancement	FM	0.014	Off-site in watershed	
Penasquitos Bluffs LT	Wetland Enhancement	SWS	0.01	Off-site in watershed	
Penasquitos Preserve (East of Black Mountain Road)	Wetland Enhancement	SCWRF	0.18	In-canyon	10/16/2003
Penasquitos Preserve LT	Wetland Enhancement	RW	0.012	In-canyon	
Penasquitos Preserve LT	Wetland Enhancement	FM	0.045	In-canyon	
Penasquitos Preserve LT	Wetland Enhancement	NVC	0.005	In-canyon	
Penasquitos Preserve LT	Wetland Enhancement	SCLORF	0.106	In-canyon	
Penasquitos Preserve LT	Wetland Enhancement	SCWRF	0.24	In-canyon	

El Rancho (Penasquitos Enhancement)

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Penasquitos Preserve LT	Wetland Enhancement	MFS	0.032	In-canyon	
Penasquitos View Emergency	Wetland Enhancement	CAM	0.002	In-canyon	8/18/2004
Rose Canyon ER Repairs between 9/01 and 5/03	Wetland Enhancement	MFS	0.03	Off-site in watershed	9/1/2001
Rose Canyon ER Repairs between 9/01 and 5/03	Wetland Enhancement	SWS	0.03	Off-site in watershed	9/1/2001
Rose Canyon ER Repairs between 9/01 and 5/03	Wetland Enhancement	NVC	0.0018	Off-site in watershed	9/1/2001
Rose Canyon ER Repairs between 9/01 and 5/03	Wetland Enhancement	RW	0.04	Off-site in watershed	9/1/2001
San Clemente Emergency Sewer Encasement Repair	Wetland Enhancement	SCLORF	0.04	Off-site in watershed	12/13/2010
Stevenson Long Term Access Project	Wetland Enhancement	NVC	0.028	Off-site in watershed	
Stevenson Long Term Access Project	Wetland Enhancement	MFS	0.085	Off-site in watershed	
Stevenson Long Term Access Project	Wetland Enhancement	SWS	0.028	Off-site in watershed	
Van Nuys Canyon Emergency Sewer Repair Project	Wetland Enhancement	NVC	0.02	Off-site in watershed	12/31/2004
Van Nuys Canyon MH # 91 Sewer Blockage	Wetland Enhancement	MFS	0.29	Off-site in watershed	12/4/1996
Van Nuys Canyon MH # 91 Sewer Blockage	Wetland Enhancement	NVC	0.13	Off-site in watershed	12/4/1996
Van Nuys Canyon MHs 113, 114 and 93	Wetland Enhancement	NVC	0.003	Off-site in watershed	12/15/2003
Van Nuys Installation of 2 36-inch Pipe Culverts	Wetland Enhancement	SWS	0.03	Off-site in watershed	2/7/2001
Van Nuys MH #114 Sewage Leak Investigation	Wetland Enhancement	NVC	0.003	Off-site in watershed	4/4/2002
Van Nuys MH #124 Sewer Leak	Wetland Enhancement	NVC	0.03	Off-site in watershed	2/10/1998
Van Nuys MH #92-76 Four Sewer Breaks (Upper Canyon)	Wetland Enhancement	DWET	0.25	Off-site in watershed	8/4/2000
Van Nuys MH #92-76 Four Sewer Breaks (Upper Canyon)	Wetland Enhancement	MFS	0.146	Off-site in watershed	8/4/2000

Total Mitigation Acres: 3.7548 acres

Lake Murray

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
upland					
32nd Street - Huckleberry LT	Upland Restoration	NNG	0.009	Off-site out of watershed	1/1/2010

Lake Murray

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Alvarado Court Emergency Sewer Repair	Upland Restoration	DCSS	0.29	Off-site in watershed	10/5/1998
Alvarado TS MH 459 and 458 Maintenance	Upland Restoration	DCSS	0.005	Off-site in watershed	5/1/2013
Buchanan Sewer Blockage Emergency	Upland Restoration	DCSS	0.035	Off-site in watershed	12/2/2013
Buchanan Sewer Blockage Emergency	Upland Restoration	SMC	0.033	Off-site in watershed	12/2/2013
Cardinal Drive Sewer Emergency	Upland Restoration	DCSS	0.0016	Off-site in watershed	12/14/2012
Florida Canyon	Upland Restoration	DCSS	0.01	Off-site out of watershed	2/28/2004
Huckleberry (32nd & Beech)	Upland Restoration	DCSS	0.009	Off-site out of watershed	7/17/2001
Huckleberry (32nd & Beech)	Upland Restoration	NNG	0.023	Off-site out of watershed	7/17/2001
Huckleberry (32nd St Canyon Emergency Maintenance)	Upland Restoration	NNG	0.03	Combination	7/21/2003
Hwy 163 (7th and Brookes 2004 Emergency Maint)	Upland Restoration	NNG	0.035	Off-site in watershed	5/28/2004
Hwy 163 Corridor (7th & Brookes 2002 Emergency Repa	Upland Restoration	NNG	0.015	Off-site in watershed	11/30/2002
Junipero Serra (Jackson/Mission Gorge Emergency)	Upland Restoration	DCSS	0.06	Off-site in watershed	11/13/2002
Lake Murray Emergency Cleaning	Upland Restoration	NNG	0.1	In-canyon	12/1/2002
Lake Murray Emergency Cleaning	Upland Restoration	DCSS	0.64	In-canyon	12/1/2002
Lake Murray Trunk Sewer and Permanent Access Path	Upland Restoration	NNG	0.05	In-canyon	
Lake Murray Trunk Sewer and Permanent Access Path	Upland Restoration	DCSS	3.32	In-canyon	
Lake Murray Trunk Sewer and Permanent Access Path	Upland Restoration	BBS	0.33	In-canyon	
Switzer MH 152 Access	Upland Restoration	DCSS	0.009	Off-site out of watershed	1/27/2014

Total Mitigation Acres: 5.0046 acres

wetland

32nd Street - Huckleberry LT	Wetland Enhancement	DWET	0.04	Off-site in watershed	1/1/2010
54th & Maisel	Wetland Enhancement	FM	0.008	Off-site in watershed	7/2/2001
60th Street Pipe Relocation/Permanent Access	Wetland Enhancement	DWET	0.005	Off-site in watershed	
Alvarado Court Emergency Sewer Repair	Wetland Enhancement	SWS	0.016	Off-site in watershed	10/5/1998

Lake Murray

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Alvarado Court Emergency Sewer Repair	Wetland Enhancement	FM	0.08	Off-site in watershed	10/5/1998
Alvarado Court Emergency Sewer Repair	Wetland Enhancement	NVC	0.03	Off-site in watershed	10/5/1998
Chocolate Combined	Wetland Enhancement	NVC	0.008	Off-site out of watershed	8/1/2000
Huckleberry (32nd & Beech)	Wetland Enhancement	DWET	0.007	Off-site out of watershed	7/17/2001
Huckleberry (32nd & Beech)	Wetland Enhancement	NVC	0.005	Off-site out of watershed	7/17/2001
Hwy 163 Corridor (7th & Brookes 2002Emergency Repa	Wetland Enhancement	NVC	0.02	Off-site in watershed	11/30/2002
Junipero Serra (Jackson/Mission Gorge Emergency)	Wetland Enhancement	SWS	0.01	Off-site in watershed	11/13/2002
Junipero Serra (Mission Gorge Emergency Repair)	Wetland Enhancement	SWS	0.03	Off-site in watershed	12/11/2001
Junipero Serra (Superior Ready Mix Emergency Repai	Wetland Enhancement	NVC	0.04	Off-site in watershed	1/26/2002
Junipero Serra (Superior Ready Mix Emergency Repai	Wetland Enhancement	SWS	0.6	Off-site in watershed	1/26/2002
Junipero Serra (Superior Ready Mix Emergency Repai	Wetland Enhancement	SCWRF	0.18	Off-site in watershed	1/26/2002
Lake Murray Emergency Cleaning	Wetland Enhancement	SWS	0.01	In-canyon	12/1/2002
Lake Murray Emergency Cleaning	Wetland Enhancement	NVC	0.01	In-canyon	12/1/2002
Lake Murray Trunk Sewer and Permanent Access Path	Wetland Enhancement	NVC	0.01	In-canyon	
Lake Murray Trunk Sewer and Permanent Access Path	Wetland Enhancement	SWS	0.32	In-canyon	
Lake Murray Trunk Sewer and Permanent Access Path	Wetland Enhancement	FM	0.07	In-canyon	
Mission Center Rd. (Kearny Mesa)	Wetland Enhancement	SWS	0.007	Off-site in watershed	1/13/2002
Switzer Canyon Emergency Sewer Repair Project	Wetland Enhancement	NVC	0.05	Off-site out of watershed	2/27/2002
Total Mitigation Acres:			1.556 acres		

Los Penasquitos North

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
upland					
Los Penasquitos North Wetland Creation Project	Upland Restoration	DCSS	0.82	On-impact	
Torreyana Sewer Repair	Upland Restoration	DCSS	0.21	Off-site in watershed	10/1/2001

Los Penasquitos North

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Total Mitigation Acres:					1.03 acres
wetland					
Acuna LT	Wetland Creation	DWET	0.01	Off-site in watershed	2/1/2005
Black Mountain Road Finger Canyon	Wetland Creation	FM	0.006	In-canyon	4/4/2003
Carmel Valley Rd Emergency Water Break	Wetland Creation	RS	0.026	Off-site in watershed	10/22/2010
Carmel Valley Rd Emergency Water Break	Wetland Creation	SWS	0.008	Off-site in watershed	10/22/2010
Carroll and Mesa Rim	Wetland Creation	SCLORF	0.1	Off-site in watershed	6/2/2003
Carroll and Mesa Rim	Wetland Creation	MFS	0.44	Off-site in watershed	6/2/2003
Carroll and Mesa Rim	Wetland Creation	SWS	0.15	Off-site in watershed	6/2/2003
Carroll and Mesa Rim	Wetland Creation	RW	0.72	Off-site in watershed	6/2/2003
Lopez Canyon LT	Wetland Creation	SWS	0.03	In-canyon	
Lopez Canyon LT	Wetland Creation	RW	0.005	In-canyon	
Lopez Canyon LT	Wetland Creation	NVC	0.01	In-canyon	
Lopez Canyon LT MH 13 Access	Wetland Creation	AM	0.1	In-canyon	9/26/2013
Lopez Canyon Manhole 102 Maintenance	Wetland Creation	NVC	0.001	In-canyon	8/18/2005
Lopez Canyon MH 45 Protection	Wetland Creation	NVC	0.0004	In-canyon	
Lopez Emergency Cleaning	Wetland Creation	SWS	0.08	In-canyon	2/13/2005
Lopez Emergency Cleaning	Wetland Creation	EW	0.001	In-canyon	2/13/2005
Lopez Emergency Cleaning	Wetland Creation	MFS	0.04	In-canyon	2/13/2005
Lopez Emergency Cleaning	Wetland Creation	RF	0.004	In-canyon	2/13/2005
Lopez MH 102 Emergency	Wetland Creation	NVC	0.003	In-canyon	12/18/2009
Lower Rose Creek Emergency Maintenance	Wetland Creation	MFS	0.05	Off-site in watershed	2/20/2004
Lower Rose Creek Emergency Maintenance	Wetland Creation	SWS	0.21	Off-site in watershed	2/20/2004
Lower Rose Creek Emergency Maintenance	Wetland Creation	RW	0.52	Off-site in watershed	2/20/2004

Los Penasquitos North

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Lower Rose Creek Emergency Maintenance	Wetland Creation	FM	0.03	Off-site in watershed	2/20/2004
Park Mesa LT	Wetland Creation	SWS	0.035	Off-site in watershed	1/11/2011
Park Mesa LT	Wetland Creation	NVC	0.006	Off-site in watershed	1/11/2011
Penasquitos Preserve (East of Black Mountain Road)	Wetland Creation	SCWRF	0.09	In-canyon	10/16/2003
Penasquitos Preserve LT	Wetland Creation	RW	0.006	In-canyon	
Penasquitos Preserve LT	Wetland Creation	SCLORF	0.053	In-canyon	
Penasquitos Preserve LT	Wetland Creation	MFS	0.008	In-canyon	
Penasquitos Preserve LT	Wetland Creation	SCWRF	0.12	In-canyon	
Penasquitos Preserve LT	Wetland Creation	FM	0.045	In-canyon	
Penasquitos View Emergency	Wetland Creation	CAM	0.002	In-canyon	8/18/2004
Penasquitos Views Trunk Sewer	Wetland Creation	SWS	0.192	In-canyon	
Van Nuys Canyon MH # 91 Sewer Blockage	Wetland Creation	MFS	0.07	Off-site in watershed	12/4/1996
Van Nuys Installation of 2 36-inch Pipe Culverts	Wetland Creation	SWS	0.03	Off-site in watershed	2/7/2001
Van Nuys MH #92-76 Four Sewer Breaks (Upper Canyon)	Wetland Creation	DWET	0.25	Off-site in watershed	8/4/2000
Van Nuys MH #92-76 Four Sewer Breaks (Upper Canyon)	Wetland Creation	MFS	0.146	Off-site in watershed	8/4/2000
Total Mitigation Acres:			3.5974 acres		

Marron Valley Cornerstone Lands Conservation Bank

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
upland					
45th & Boston	Upland Bank	NNG	0.07	Off-site out of watershed	12/13/2002
54th & Maisel	Upland Bank	DCSS	0.04	Off-site out of watershed	7/2/2001
60th Street Pipe Relocation/Permanent Access	Upland Bank	NNG	0.024	Off-site out of watershed	
60th Street Pipe Relocation/Permanent Access	Upland Bank	DCSS	0.095	Off-site out of watershed	
Alvarado LT	Upland Bank	CC	0.04	Off-site out of watershed	

Marron Valley Cornerstone Lands Conservation Bank

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Alvarado LT	Upland Bank	DCSS	0.07	Off-site out of watershed	
Alvarado LT	Upland Bank	SMC	0.01	Off-site out of watershed	
Balboa Terrace Trunk Sewer Replacement	Upland Bank	DCSS	0.354	Off-site out of watershed	9/16/2013
Buchanan	Upland Bank	SMC	0.12	Off-site out of watershed	3/11/2002
Buchanan	Upland Bank	DCSS	0.04	Off-site out of watershed	3/11/2002
Buchanan	Upland Bank	POS	0.13	Off-site out of watershed	3/11/2002
Buchanan (10th & Johnson Ave. Emergency Repair)	Upland Bank	DCSS	0.13	Off-site out of watershed	9/6/2002
Buchanan (Highway 163 & Lincoln Street Emergency)	Upland Bank	SMC	0.054	Off-site out of watershed	4/11/2003
Buchanan (Highway 163 & Lincoln Street Emergency)	Upland Bank	DCSS	0.018	Off-site out of watershed	4/11/2003
Buchanan LT	Upland Bank	SMC	0.043	Off-site out of watershed	1/1/2004
Buchanan LT	Upland Bank	POS	0.026	Off-site out of watershed	1/1/2004
Buchanan/Caminito Fuente	Upland Bank	DCSS	0.02	Off-site out of watershed	9/15/2004
Dakota Canyon Replacement/Relocation/Access	Upland Bank	DCSS	0.57	Off-site out of watershed	1/22/2008
Euclid & Menlo (47th & Thorn Sewer Maint & Emerg)	Upland Bank	DCSS	0.01	Off-site out of watershed	2/1/2004
Euclid & Menlo (47th & Thorn Sewer Maint & Emerg)	Upland Bank	NNG	0.05	Off-site out of watershed	2/1/2004
Hwy 163 North LT	Upland Bank	NNG	0.19	Off-site out of watershed	
I-805 & 94 Canyon (40th & C Emergency Repair)	Upland Bank	SMC	0.016	Off-site out of watershed	2/6/2003
I-805 & 94 Canyon (40th & C Emergency Repair)	Upland Bank	NNG	0.011	Off-site out of watershed	2/6/2003
Lexington (Central & Redwood Emergency)	Upland Bank	NNG	0.14	Off-site out of watershed	1/1/1999
Lexington (Central & Redwood Emergency)	Upland Bank	SMC	0.002	Off-site out of watershed	1/1/1999
Lexington/Manzanita Pipe and MH Replacement Emer	Upland Bank	SMC	0.059	Off-site out of watershed	11/4/2008
Mission Center LT	Upland Bank	SMC	0.04	Off-site in watershed	7/1/2004
Mission Center LT	Upland Bank	DCSS	0.14	Off-site out of watershed	7/1/2004
Norfolk (Fairmont & Montezuma)	Upland Bank	SMC	0.106	Off-site out of watershed	4/22/2002

Marron Valley Cornerstone Lands Conservation Bank

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Norfolk (Fairmont & Montezuma)	Upland Bank	DCSS	0.398	Off-site out of watershed	4/22/2002
Norfolk (Fairmont & Montezuma)	Upland Bank	BBS	0.06	Off-site out of watershed	4/22/2002
Norfolk (Fairmont & Montezuma)	Upland Bank	POS	0.151	Off-site out of watershed	4/22/2002
Norfolk Canyon Maintenance Project	Upland Bank	DCSS	0.302	Off-site out of watershed	6/10/2004
Norfolk Canyon Maintenance Project	Upland Bank	SMC	0.002	Off-site out of watershed	6/10/2004
Norfolk LT	Upland Bank	SMC	0.02	Off-site out of watershed	7/1/2004
Otay Valley TS Pipe Protection	Upland Bank	NNG	0.02	Off-site out of watershed	9/16/2013
Pump Station 77 Inspections	Upland Bank	DCSS	0.348	Off-site out of watershed	
Pump Station 77 Inspections	Upland Bank	NNG	0.02	Off-site out of watershed	
Rancho Bernardo 15 East	Upland Bank	DCSS	0.31	Off-site out of watershed	3/17/2004
Rancho Bernardo 15 East (Escala Emergency)	Upland Bank	DCSS	0.1	Off-site out of watershed	8/24/2007
Rancho Mission LT	Upland Bank	DCSS	0.006	Off-site out of watershed	11/12/2013
Shepherd	Upland Bank	DCSS	0.01	Off-site out of watershed	2/1/2003
Shepherd LT	Upland Bank	NNG	0.09	Off-site in watershed	
South Chollas LTA	Upland Bank	DCSS	0.508	Off-site out of watershed	
Stevenson	Upland Bank	DCSS	0.14	Off-site out of watershed	8/8/2001
Stevenson	Upland Bank	POS	0.04	Off-site out of watershed	8/8/2001
Stevenson Canyon Manhole 138 Emergency	Upland Bank	NNG	0.18	Off-site out of watershed	3/23/2006
Stevenson Long Term Access Project	Upland Bank	NNG	0.28	Off-site out of watershed	
Trinidad & Euclid	Upland Bank	SMC	0.13	Off-site out of watershed	5/9/2001
USIU	Upland Bank	NNG	0.75	Off-site out of watershed	
USIU	Upland Bank	SMC	0.2	Off-site out of watershed	
USIU	Upland Bank	DCSS	0.2	Off-site out of watershed	

Total Mitigation Acres: 6.883 acres

Otay Mesa Mitigation Bank

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
upland					
15 West and Elanus	Upland Bank	DCSS	0.2	Off-site out of watershed	12/19/2003
Acuna	Upland Bank	DCSS	0.01	Off-site out of watershed	3/11/2002
Acuna	Upland Bank	SMC	0.07	Off-site out of watershed	3/11/2002
Auburn & Belle Island (Isla Vista/Auburn Dr. Emerg	Upland Bank	DCSS	0.06	Off-site out of watershed	10/21/2002
Bounty & Waring (Bounty & Spear Emergency Repair)	Upland Bank	DCSS	0.2	Off-site out of watershed	4/29/2003
Elanus & Murray Canyons (I-15 & Clairemont Mesa Bl	Upland Bank	DCSS	0.122	Off-site out of watershed	12/11/2002
Euclid & Menlo (47th & Thorn Sewer Maint & Emerg)	Upland Bank	SMRC	0.05	Off-site out of watershed	2/1/2004
Euclid & Menlo Canyon (47th & Thorn Emergency Repa	Upland Bank	SMRC	0.02	Off-site out of watershed	4/29/2002
Fairmont & Home	Upland Bank	SMRC	0.11	Off-site out of watershed	4/9/2004
Fairmont & Home	Upland Bank	NNG	0.25	Off-site out of watershed	4/9/2004
Hopkins	Upland Bank	NNG	0.14	Off-site out of watershed	3/17/2004
Hopkins (Calle Abajo Emergency)	Upland Bank	NNG	0.09	Off-site out of watershed	4/3/2002
Hwy 163 North LT	Upland Bank	CLOW	0.04	Off-site out of watershed	
Norfolk (Fairmont & Montezuma)	Upland Bank	SOC	0.046	Off-site out of watershed	4/22/2002
Rancho Bernardo 15 East	Upland Bank	DCSS	0.31	Off-site out of watershed	3/17/2004
Rancho Mission LT	Upland Bank	DCSS	0.026	Off-site out of watershed	11/12/2013
South Juniper Emergency Project	Upland Bank	DCSS	0.001	Off-site out of watershed	5/14/2006
Switzer MH 152 Access	Upland Bank	SOC	0.009	Off-site out of watershed	1/27/2014

Total Mitigation Acres: 1.754 acres

Penasquitos Eucalyptus Removal

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
wetland					
Carroll and Mesa Rim	Wetland Enhancement	RW	0.31	Off-site in watershed	6/2/2003

Penasquitos Eucalyptus Removal

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Total Mitigation Acres:		0.31 acres			

Rancho Mission Enhancement

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
wetland					
15 West and Elanus	Wetland Enhancement	SWS	0.05	Off-site in watershed	12/19/2003
Alvarado Court Sewer Crossing	Wetland Enhancement	SWS	0.005	Off-site in watershed	
Alvarado LT	Wetland Enhancement	NVC	0.01	Off-site in watershed	
Alvarado LT	Wetland Enhancement	DWET	0.01	Off-site in watershed	
Alvarado LT	Wetland Enhancement	MFS	0.01	Off-site in watershed	
Alvarado Trunk Sewer	Wetland Enhancement	DWET	0.022	Off-site in watershed	
Barr Avenue (Hotel Circle) part of Dove Canyon	Wetland Enhancement	NVC	0.01	Off-site in watershed	8/16/2003
Bay View Emergency Response Project	Wetland Enhancement	NVC	0.013	Off-site out of watershed	8/20/2004
Buchanan	Wetland Enhancement	DWET	0.322	Off-site in watershed	3/11/2002
Buchanan	Wetland Enhancement	SWS	0.0108	Off-site in watershed	3/11/2002
Buchanan B	Wetland Enhancement	NVC	0.02	Off-site in watershed	
Buchanan LT	Wetland Enhancement	DWET	0.06	Off-site in watershed	1/1/2004
Buchanan LT	Wetland Enhancement	NVC	0.624	Off-site in watershed	1/1/2004
Buchanan Sewer Blockage Emergency	Wetland Enhancement	SWS	0.017	Off-site in watershed	12/2/2013
Chollas Dam Vegetation Removal	Wetland Enhancement	FM	0.022	Off-site in watershed	1/22/2013
Chollas Exposed Water Main Repair	Wetland Enhancement	RS	0.014	Off-site out of watershed	8/30/2011
Delevan & I-15 Emerg Repair (South Juniper Canyon)	Wetland Enhancement	NVC	0.03	Off-site out of watershed	7/27/2005
Elanus & Murray Canyons (I-15 & Clairemont Mesa Bl	Wetland Enhancement	SWS	0.007	Off-site in watershed	12/11/2002
Elanus (I-15 & Clairemont Mesa Blvd) LT	Wetland Enhancement	EW	0.005	Off-site in watershed	
Euclid & Menlo (47th & Thorn Sewer Maint & Emerg)	Wetland Enhancement	NVC	0.01	Off-site out of watershed	2/1/2004

Rancho Mission Enhancement

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Euclid & Menlo (47th & Thorn Sewer Maint & Emerg)	Wetland Enhancement	DWET	0.08	Off-site out of watershed	2/1/2004
Euclid & Menlo Canyon (47th & Thorn Emergency Repa	Wetland Enhancement	NVC	0.0011	Off-site out of watershed	4/29/2002
Euclid and Menlo Emerg Pipe Protection	Wetland Enhancement	NVC	0.005	Off-site out of watershed	5/26/2011
Federal & Chollas	Wetland Enhancement	DWET	0.0008	Off-site out of watershed	10/22/2002
Fox Canyon (University & 49th) Emergency Repair	Wetland Enhancement	NVC	0.002	Off-site out of watershed	10/29/2007
Hopkins	Wetland Enhancement	DWET	0.02	Off-site out of watershed	3/17/2004
Hopkins (Calle Abajo Emergency)	Wetland Enhancement	NVC	0.002	Off-site out of watershed	4/3/2002
Huckleberry (32nd St Canyon Emergency Maintenance)	Wetland Enhancement	DWET	0.04	Off-site out of watershed	7/21/2003
Hwy 163 Corridor (7th & Brookes 2002Emergency Repa	Wetland Enhancement	NVC	0.02	Off-site out of watershed	11/30/2002
Hwy 163 North LT	Wetland Enhancement	NVC	0.001	Off-site out of watershed	
I-15 & Adams	Wetland Enhancement	NVC	0.07	Off-site in watershed	5/6/2004
I-15 & Adams	Wetland Enhancement	EW	0.004	Off-site in watershed	5/6/2004
I-805 & 94 Canyon (40th & C Emergency Repair)	Wetland Enhancement	NVC	0.0013	Off-site out of watershed	2/6/2003
Isla Vista Emergency Response Project	Wetland Enhancement	NVC	0.003	Off-site out of watershed	5/17/2004
Lexington/Manzanita Pipe and MH Replacement Emer	Wetland Enhancement	NVC	0.016	Off-site out of watershed	11/4/2008
Lexington/Manzanita Pipe Encasement Emergency	Wetland Enhancement	NVC	0.005	Off-site out of watershed	6/4/2009
Market & Euclid (MH 88 Repair at Encanto Creek)	Wetland Enhancement	SWS	0.003	Off-site out of watershed	10/22/2009
Mission Center Canyon B	Wetland Enhancement	EW	0.02	Off-site in watershed	1/1/2011
Mission Center Canyon B	Wetland Enhancement	RS	0.025	Off-site in watershed	1/1/2011
Mission Center Canyon B	Wetland Enhancement	DWET	0.014	Off-site in watershed	1/1/2011
Mission Center Canyon Emergency Sewer Repair	Wetland Enhancement	NVC	0.014	Off-site in watershed	3/10/2010
Mission Center Canyon Emergency Sewer Repair	Wetland Enhancement	DWET	0.006	Off-site in watershed	3/10/2010
Mission Center Canyon Emergency Sewer Repair	Wetland Enhancement	FM	0.023	Off-site in watershed	3/10/2010
Mission Center Canyon Emergency Sewer Repair	Wetland Enhancement	SWS	0.004	Off-site in watershed	3/10/2010

Rancho Mission Enhancement

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Murphy Canyon TS Access and Repair	Wetland Enhancement	FM	0.051	Off-site out of watershed	
Norfolk (Fairmont & Montezuma)	Wetland Enhancement	SWS	0.003	Off-site in watershed	4/22/2002
Norfolk (Fairmont & Montezuma)	Wetland Enhancement	NVC	0.042	Off-site in watershed	4/22/2002
Norfolk Canyon Maintenance Project	Wetland Enhancement	NVC	0.002	Off-site in watershed	6/10/2004
Presidio (Palm Cyn) GJ665	Wetland Enhancement	NVC	0.0137	Off-site in watershed	
Presidio (Palm Cyn) GJ665	Wetland Enhancement	RS	0.165	Off-site in watershed	
Rancho Mission (Mission Gorge Canyon, Conestoga Co	Wetland Enhancement	NVC	0.008	In-canyon	2/7/2002
Rancho Mission (Mission Gorge Canyon, Conestoga Co	Wetland Enhancement	DWET	0.005	In-canyon	2/7/2002
Rancho Mission LT	Wetland Enhancement	SWS	0.007	Off-site in watershed	11/12/2013
San Diego Mission Rd Emergency	Wetland Enhancement	SWS	0.01	Off-site in watershed	7/9/2011
San Diego Mission Rd Emergency	Wetland Enhancement	FM	0.01	Off-site in watershed	7/9/2011
Shepherd	Wetland Enhancement	SWS	0.01	Off-site in watershed	2/1/2003
Shepherd LT	Wetland Enhancement	NVC	0.03	Off-site in watershed	
Shepherd LT	Wetland Enhancement	DWET	0.015	Off-site in watershed	
Shepherd LT	Wetland Enhancement	RW	0.06	Off-site in watershed	
Shepherd LT	Wetland Enhancement	RS	0.02	Off-site in watershed	
South Chollas LTA	Wetland Enhancement	MFS	0.0015	Off-site out of watershed	
South Juniper Emergency Project	Wetland Enhancement	NVC	0.02	Off-site out of watershed	5/14/2006
Valencia Canyon Emergency Repair & Maintenance	Wetland Enhancement	MFS	0.004	Off-site out of watershed	1/25/2003
Valencia Canyon Emergency Repair & Maintenance	Wetland Enhancement	NVC	0.0014	Off-site out of watershed	1/25/2003
Willow St. Canyon	Wetland Enhancement	NVC	0.004	Off-site out of watershed	5/2/2005
Woodman Canyon Emergency Sewer Access and Repair	Wetland Enhancement	NVC	0.004	Off-site out of watershed	1/6/2005
Total Mitigation Acres:			2.1386 acres		

Rose Canyon Wetland and Upland

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
upland					
I-5/SR-52 Maintenance Project	Upland Restoration	DCSS	0.02	In-canyon	
I-5/SR-52 Maintenance Project	Upland Restoration	NNG	0.01	In-canyon	
Middle Rose Creek (ER Repair -Rose W of Genesee)	Upland Restoration	NNG	0.04	In-canyon	12/1/2002
Middle Rose Creek (ER Repair -Rose W of Genesee)	Upland Restoration	DCSS	0.06	In-canyon	12/1/2002
Miramar Trunk Sewer Replacement Project	Upland Restoration	SOC	0.027	In-canyon	7/6/2007
Miramar Trunk Sewer Replacement Project	Upland Restoration	CLOW	0.154	In-canyon	7/6/2007
Miramar Trunk Sewer Replacement Project	Upland Restoration	SMC	0.058	In-canyon	7/6/2007
Miramar Trunk Sewer Replacement Project	Upland Restoration	NNG	0.181	In-canyon	7/6/2007
Miramar Trunk Sewer Replacement Project	Upland Restoration	DCSS	0.737	In-canyon	7/6/2007
Miramar Trunk Sewer Replacement Project	Upland Restoration	BBS	0.959	In-canyon	7/6/2007
Miramar Trunk Sewer Replacement Project	Upland Restoration	POS	0.117	In-canyon	7/6/2007
Old Rose Canyon Sewer Relocation Project	Upland Restoration	NNG	0.045	In-canyon	2/8/2011
Penasquitos Bluffs (Finger Canyon Emergency)	Upland Restoration	SOC	0.3	Off-site in watershed	11/1/2000
Penasquitos Bluffs (Finger Canyon Emergency)	Upland Restoration	NG	0.02	Off-site in watershed	11/1/2000
Penasquitos Lagoon Mh 190 Access	Upland Restoration	DCSS	0.006	Off-site in watershed	11/20/2013
Penasquitos View Emergency	Upland Restoration	DCSS	0.01	Off-site in watershed	8/18/2004
Rose Canyon ER Repairs between 9/01 and 5/03	Upland Restoration	BBS	0.03	In-canyon	9/1/2001
Rose Canyon ER Repairs between 9/01 and 5/03	Upland Restoration	DCSS	0.13	In-canyon	9/1/2001
Rose Canyon ER Repairs between 9/01 and 5/03	Upland Restoration	POS	0.05	In-canyon	9/1/2001
Rose Canyon ER Repairs between 9/01 and 5/03	Upland Restoration	NNG	0.2	In-canyon	9/1/2001

Total Mitigation Acres: 3.154 acres

wetland

I-5/SR-52 Maintenance Project	Wetland Creation	SWS	0.03	In-canyon	
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Rose Canyon Wetland and Upland

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Lower Rose Canyon Emergency Repairs (MH 15)	Wetland Enhancement	MFS	0.11	In-canyon	2/8/2005
Lower Rose Canyon Emergency Repairs (MH 15)	Wetland Creation	CVFM	0.21	In-canyon	2/8/2005
Lower Rose Canyon Emergency Repairs (MH 15)	Wetland Creation	MFS	0.11	In-canyon	2/8/2005
Lower Rose Canyon Emergency Repairs (MH 15)	Wetland Creation	SWS	0.32	In-canyon	2/8/2005
Lower Rose Canyon Emergency Repairs (MH 15)	Wetland Creation	EW	0.005	In-canyon	2/8/2005
Lower Rose Canyon Emergency Repairs (MH 15)	Wetland Enhancement	CVFM	0.21	In-canyon	2/8/2005
Lower Rose Canyon Emergency Repairs (MH 15)	Wetland Enhancement	EW	0.005	In-canyon	2/8/2005
Middle Rose Cyn MH 160 Emergency	Wetland Enhancement	NVC	0.02	Off-site in watershed	11/17/2011
Middle Rose Cyn MH 160 Emergency	Wetland Creation	SWS	0.02	Off-site in watershed	11/17/2011
Miramar Trunk Sewer Replacement Project	Wetland Creation	SCLORF	0.162	In-canyon	7/6/2007
Miramar Trunk Sewer Replacement Project	Wetland Creation	MFS	1.352	In-canyon	7/6/2007
Miramar Trunk Sewer Replacement Project	Wetland Creation	RW	0.577	In-canyon	7/6/2007
Miramar Trunk Sewer Replacement Project	Wetland Creation	SWS	0.445	In-canyon	7/6/2007
Monte Verde Sewer Improvements	Wetland Creation	SRF	0.04	In-canyon	1/1/2010
Old Rose Canyon Sewer Relocation Project	Wetland Creation	FM	0.002	In-canyon	2/8/2011
Old Rose Canyon Sewer Relocation Project	Wetland Creation	SWS	0.04	In-canyon	2/8/2011
Old Rose Canyon Sewer Relocation Project	Wetland Creation	MFS	0.007	In-canyon	2/8/2011
Rose Canyon ER Repairs between 9/01 and 5/03	Wetland Creation	RW	0.02	In-canyon	9/1/2001
Rose Canyon ER Repairs between 9/01 and 5/03	Wetland Creation	NVC	0.0018	In-canyon	9/1/2001
Rose Canyon ER Repairs between 9/01 and 5/03	Wetland Creation	MFS	0.03	In-canyon	9/1/2001
Rose Creek East of I-805 (Miramar Rd & Commerce Av	Wetland Creation	SWS	0.03	In-canyon	3/11/2002
Rose Creek Emergency Bypass Project	Wetland Enhancement	NVC	0.005	In-canyon	1/31/2005
Total Mitigation Acres:			3.7518 acres		

San Clemente Wetland and Upland

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
upland					
Gesner LT	Upland Restoration	DCSS	0.1	Off-site in watershed	
Gesner/Huron	Upland Restoration	NNG	0.01	Off-site in watershed	8/1/1998
Penasquitos Bluffs (Finger Canyon Emergency)	Upland Restoration	DCSS	0.71	Off-site in watershed	11/1/2000
Penasquitos Bluffs (Finger Canyon Emergency)	Upland Restoration	NNG	0.03	Off-site in watershed	11/1/2000
Penasquitos Bluffs (Finger Canyon Emergency)	Upland Restoration	CC	0.02	Off-site in watershed	11/1/2000
San Clemente (Emergency Repairs Combined)	Upland Restoration	DCSS	0.051	In-canyon	9/1/2001
San Clemente (Emergency Repairs Combined)	Upland Restoration	NNG	0.005	In-canyon	9/1/2001
San Clemente Canyon Access Path LT Project	Upland Restoration	DCSS	0.035	In-canyon	
San Clemente Canyon Access Path LT Project	Upland Restoration	CLOW	0.54	In-canyon	
San Clemente Canyon Biltmore Pipe Protection Emerg	Upland Restoration	NNG	0.051	In-canyon	11/30/2006
San Clemente Canyon Biltmore Pipe Protection Emerg	Upland Restoration	SMC	0.01	In-canyon	11/30/2006
San Clemente Canyon Biltmore Pipe Protection Emerg	Upland Restoration	DCSS	0.01	In-canyon	11/30/2006
San Clemente LT MH #4	Upland Restoration	DCSS	0.076	In-canyon	9/20/2010
Wet Weather Stream Discharge	Upland Restoration	DCSS	0.38	In-canyon	
Wet Weather Stream Discharge	Upland Restoration	SMC	0.06	In-canyon	
Total Mitigation Acres:			2.088 acres		
wetland					
Balboa Terrace Trunk Sewer Replacement	Wetland Creation	FM	0.04	Off-site in watershed	9/16/2013
Balboa Terrace Trunk Sewer Replacement	Wetland Creation	SWS	0.064	Off-site in watershed	9/16/2013
Balboa Terrace Trunk Sewer Replacement	Wetland Creation	MFS	0.022	Off-site in watershed	9/16/2013
Balboa Terrace Trunk Sewer Replacement	Wetland Creation	DWET	0.107	Off-site in watershed	9/16/2013
Balboa Terrace Trunk Sewer Replacement	Wetland Creation	NVC	0.014	Off-site in watershed	9/16/2013
Balboa Terrace Trunk Sewer Replacement	Wetland Creation	SCLORF	0.003	Off-site in watershed	9/16/2013

San Clemente Wetland and Upland

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Carroll Canyon Emergency Sewer Repair	Wetland Creation	NVC	0.01	Off-site in watershed	2/26/2010
Carroll Canyon Emergency Sewer Repair	Wetland Creation	SAWRF	0.03	Off-site in watershed	2/26/2010
Dakota Canyon Replacement/Relocation/Access	Wetland Creation	NVC	0.03	Off-site in watershed	1/22/2008
East Tecolote Canyon Pipe Encasemt Protection Proj	Wetland Creation	SWS	0.036	Off-site in watershed	10/4/2010
East Tecolote Canyon Pipe Encasemt Protection Proj	Wetland Creation	OW	0.023	Off-site in watershed	10/4/2010
East Tecolote Canyon Pipe Encasemt Protection Proj	Wetland Creation	SRF	0.04	Off-site in watershed	10/4/2010
Penasquitos Bluffs LT	Wetland Creation	AM	0.014	Off-site in watershed	
Penasquitos Bluffs LT	Wetland Creation	SWS	0.01	Off-site in watershed	
Penasquitos Bluffs LT	Wetland Creation	FM	0.014	Off-site in watershed	
San Clemente Canyon Access Path LT Project	Wetland Creation	SCWRF	0.27	In-canyon	
San Clemente Canyon Access Path LT Project	Wetland Creation	SCLORF	0.85	In-canyon	
San Clemente Canyon Biltmore Pipe Protection Emerg	Wetland Creation	SCLORF	0.117	In-canyon	11/30/2006
San Clemente Canyon Biltmore Pipe Protection Emerg	Wetland Creation	NVC	0.004	In-canyon	11/30/2006
San Clemente Canyon Mitigation Project	Wetland Creation	SCLORF	0.003	In-canyon	9/15/2007
San Clemente Emergency Sewer Encasement Repair	Wetland Creation	SCLORF	0.02	In-canyon	12/13/2010
San Clemente Emergency Sewer Encasement Repair	Wetland Creation	NVC	0.01	In-canyon	12/13/2010
Soledad Valley Water Line Break	Wetland Creation	AM	0.2	Off-site in watershed	3/23/2009
Stevenson Long Term Access Project	Wetland Creation	SWS	0.028	Off-site in watershed	
Stevenson Long Term Access Project	Wetland Creation	MFS	0.085	Off-site in watershed	
Tecolote Mt. Ashmun Pipe Protection Emergency	Wetland Creation	RF	0.01	Off-site in watershed	1/17/2008
Wet Weather Stream Discharge	Wetland Creation	NVC	0.01	In-canyon	

Total Mitigation Acres: 2.064 acres

Tecolote - Tree of Heaven removal

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
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Tecolote - Tree of Heaven removal

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
wetland					
Tecolote	Wetland Enhancement	SCLORF	0.25	In-canyon	2/28/2001
Total Mitigation Acres:		0.25 acres			

Tecolote Canyon Wetland and Upland

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
upland					
East Tecolote (East Clairemont)	Upland Restoration	DCSS	0.012	In-canyon	1/8/2002
East Tecolote Emergency MH 218	Upland Restoration	DCSS	0.027	In-canyon	2/8/2010
East Tecolote Manholes 223 and 224 Emergency	Upland Restoration	DCSS	0.009	In-canyon	12/16/2009
East Tecolote Manholes 223 and 224 Emergency	Upland Restoration	CLOW	0.018	In-canyon	12/16/2009
Manning Street Sewer Repair	Upland Restoration	DCSS	1	In-canyon	7/6/2001
Manning Street Sewer Repair	Upland Restoration	NNG	0.1	In-canyon	7/6/2001
Park Mesa LT	Upland Restoration	SMC	0.015	Off-site in watershed	1/11/2011
Park Mesa LT	Upland Restoration	NNG	0.009	Off-site in watershed	1/11/2011
Park Mesa LT	Upland Restoration	DCSS	0.108	Off-site in watershed	1/11/2011
Park Mesa Way	Upland Restoration	BBS	0.04	In-canyon	1/13/2000
Stevenson Canyon MH 257 Emergency	Upland Restoration	DCSS	0.0048	Off-site in watershed	10/30/2012
Tecolote	Upland Restoration	POS	0.03	In-canyon	2/28/2001
Tecolote	Upland Restoration	DCSS	0.07	In-canyon	2/28/2001
Tecolote (including Mt. Elbrus)	Upland Restoration	NNG	0.05	In-canyon	11/18/2002
Tecolote (including Mt. Elbrus)	Upland Restoration	DCSS	0.245	In-canyon	11/18/2002
Tecolote Canyon Mitigation Project	Upland Restoration	POS	0.65	In-canyon	
Tecolote Emergency Pipe Repair (Crossing)	Upland Restoration	DCSS	0.004	In-canyon	12/13/2004
Tecolote LT	Upland Restoration	DCSS	0.4	In-canyon	

Tecolote Canyon Wetland and Upland

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Tecolote Pipe Repair Near Manhole 346	Upland Restoration	DCSS	0.024	In-canyon	8/17/2009
Tecolote Pipe Repair Near Manhole 346	Upland Restoration	NNG	0.11	In-canyon	8/17/2009
Total Mitigation Acres:			2.9258 acres		
wetland					
East Tecolote (East Clairemont)	Wetland Creation	SWS	0.0001	In-canyon	1/8/2002
East Tecolote (East Clairemont)	Wetland Creation	SRF	0.004	In-canyon	1/8/2002
East Tecolote Emergency MH 218	Wetland Creation	NVC	0.007	In-canyon	2/8/2010
East Tecolote Emergency MH 218	Wetland Creation	SRF	0.048	In-canyon	2/8/2010
East Tecolote Manholes 223 and 224 Emergency	Wetland Creation	OW	0.015	In-canyon	12/16/2009
East Tecolote Manholes 223 and 224 Emergency	Wetland Creation	SWS	0.033	In-canyon	12/16/2009
East Tecolote Manholes 223 and 224 Emergency	Wetland Creation	SRF	0.034	In-canyon	12/16/2009
East Tecolote Manholes 223 and 224 Emergency	Wetland Creation	FM	0.039	In-canyon	12/16/2009
Park Mesa Way	Wetland Creation	SWS	0.15	In-canyon	1/13/2000
Tecolote (including Mt. Elbrus)	Wetland Creation	SWS	0.13	In-canyon	11/18/2002
Tecolote (including Mt. Elbrus)	Wetland Creation	SCLORF	0.2	In-canyon	11/18/2002
Tecolote Emergency Pipe Repair (Crossing)	Wetland Creation	SCLORF	0.002	In-canyon	12/13/2004
Tecolote Emergency Pipe Repair (Crossing)	Wetland Creation	EW	0.002	In-canyon	12/13/2004
Tecolote Emergency Pipe Repair (Crossing)	Wetland Creation	SWS	0.008	In-canyon	12/13/2004
Tecolote LT	Wetland Creation	SRF	0.7	In-canyon	
Tecolote LT	Wetland Creation	SWS	0.03	In-canyon	
Tecolote LT	Wetland Creation	MFS	0.01	In-canyon	
Tecolote MH 101 Emergency	Wetland Creation	MFS	0.0005	In-canyon	4/5/2010
Tecolote MH 101 Emergency	Wetland Creation	NVC	0.0034	In-canyon	4/5/2010
Tecolote Mt. Ashmun Pipe Protection Emergency	Wetland Creation	RF	0.01	In-canyon	1/17/2008

Tecolote Canyon Wetland and Upland

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Tecolote Mt. Ashmun Pipe Protection Erosion Contro	Wetland Creation	SWS	0.001	In-canyon	9/9/2009
Tecolote Mt. Ashmun Pipe Protection Erosion Contro	Wetland Creation	RF	0.002	In-canyon	9/9/2009
Tecolote North Exposed TS Emergency	Wetland Creation	NVC	0.001	In-canyon	10/31/2013
Tecolote Pipe Repair Near Manhole 346	Wetland Creation	SRF	0.035	In-canyon	8/17/2009
Total Mitigation Acres:	1.465 acres				

ATTACHMENT 5 CEQA MITIGATION MONITORING AND REPORTING PROGRAM

Excerpted from the Canyon Sewer Cleaning and Long-Term Maintenance Program EIR, State Clearinghouse No. 2002041129.

Hydrology/Water Quality

Mitigation Measure HWQ-1: Each Maintenance and Emergency Access Plan shall include an erosion and sedimentation control plan that incorporates Best Management Practices (BMPs) to specifically address, and mitigate the potential hydrology and water quality impacts of the proposed activity. Additionally, a Stormwater Requirements Applicability Checklist shall be submitted as part of each subsequent project.

The following summarizes typical BMP objectives for erosion and sedimentation control, as would be applied to projects under both Programs. The BMPs are based on the California Storm Water Best Management Practice Handbook for Construction Activity, issued by the California Storm Water Quality Association (CASQA) and the Erosion and Sediment Control Field Manual, issued by the San Francisco Bay Regional Water Quality Control Board.^{1,2} Following the description of BMP objectives is a more specific indication of the types of BMP measures that would apply to both Programs.

For each individual project under either Program, the most appropriate BMPs shall be selected and implemented based on the particular characteristics of the project site and the specific cleaning, maintenance, or flow diversion activities to be completed. Because each project, and site, is unique, an understanding of the pollution risks of the proposed activity is essential for selecting and implementing BMPs. Defining these risks requires review of the characteristics of the site and the nature of the construction. Once these pollution risks are defined, BMP objectives are developed, and BMPs selected. The BMP objectives for construction projects are as follows:

- *Practice Good Housekeeping.* Perform activities in a manner that keeps potential pollutants from either draining or being transported off-site by managing pollutant sources and modifying construction activities.
- *Contain Waste.* Should it be necessary for activity-related wastes to temporarily remain on-site until it can be hauled away for appropriate off-site disposal, contain all such waste in designated areas, and keep storm water from flowing onto or off of these areas.
- *Minimize Disturbed Areas.* Only clear land that is necessary to allow equipment access and operation and avoid clearing/disturbing sensitive lands (e.g., steep slopes, and watercourses). Wherever possible, avoid grading, grubbing, cutting, and other activities that

¹ California Storm Water Quality Association. California Storm Water Best Management Practice Handbooks. Prepared by Camp Dresser & McKee, Larry Walker Associates, Uribe and Associates, and Resources Planning Associates. Revised January, 2003.

² California Regional Water Quality Control Board, San Francisco Bay Region. Erosion and Sediment Control Field Manual.

removes existing vegetation and/or results in surface disturbance. Trimming and cutting vegetation to allow equipment to travel over the vegetation is preferable to complete removal. If land disturbance is required, seek to avoid such activity during the rainy season.

- *Stabilize Disturbed Areas.* Provide stabilization of disturbed soils soon after cleaning or maintenance activities have been completed, whenever active construction is not occurring on a portion of the site. Spoils left onsite will be stabilized.
- *Protect Slopes and Channels.* Outside of the approved grading plan area, avoid disturbing steep or unstable slopes. Safely convey runoff from the top of the slope, and stabilize disturbed slopes as quickly as possible. Avoid disturbing natural channels. Stabilize temporary and permanent channel crossings as quickly as possible, and ensure that increases in runoff velocity caused by the project do not erode the channel. Select the appropriate channel crossing type (see Section III.C. for description of channel crossing types) that includes provisions for the necessary stabilization of channel material at the crossing location (i.e., geo-synthetic fabric layer overlain with rock, cobble, grids, or other material to both hold the underlying earthen material and provide a textured surface for vehicles/equipment to cross over), and is designed to maintain the natural functions and values of the stream (i.e., crossing would not cause a notable increase or impediment to existing streamflows).
- *Control Site Perimeter.* Upstream runoff should be diverted around or safely conveyed through cleaning and maintenance activity areas. Local codes usually state that such diversions must not cause downstream property damage or be diverted into another watershed. Runoff from the project site should be free of excessive sediment and other constituents.
- *Control Internal Erosion.* Detain sediment-laden waters from disturbed, active areas within the site.
- *Maintain Storm Drains and Culverts.* The City shall continue to maintain storm drains and culverts located outside of urban developed areas.

A combination of BMPs shall be used to prevent pollutants from storm water from entering the waterways. These could include, but shall not be limited to, the placement of gravel bags, silt fencing, fiber rolls etc. during construction. Depending on the site conditions of the project, permanent BMPs shall be designed into the project such as brow ditches, terracing, and the native revegetation of slopes. In addition, any time rootballs are removed BMPs shall be installed. If soil on slopes exceeding the following percentages is disturbed, drainage diversions shall be installed at the following intervals to dissipate the energy of the new drainage:

Slope Steepness	Distance Between Drainage Diversion
Less than 5 percent	125 feet (38.1 meters)
Between 5 and 10 percent	80 feet (24.4 meters)
Between 10 and 20 percent	50 feet (15.2 meters)
Greater than 20 percent	30 feet (9.14 meters)

The specific measures and practices to be applied for projects to meet the above BMP objectives shall be determined on a case-by-case basis, based on-site characteristics. MWWDD shall be responsible for implementing all BMPs and water quality measures. The particular BMPs to be applied, relative to erosion and sedimentation control, shall include, but not be limited to, any of the following practices/measures:

1. **Site Planning (Access Route) Considerations** would include *avoiding* steep slope areas and water courses, *scheduling* of grading/construction activities (e.g., to avoid storm weather and increased runoff), and *preservation of existing vegetation* (or avoidance/minimization of existing vegetative cover). In addition, if sewer and existing/proposed permanent access is located within a creek, access shall occur during periods of normal to low flow or in non-saturated soil conditions.
2. **Vegetative Stabilization** includes *seeding and planting* and *mulching* to foster/enhance the growth of vegetation on exposed soils (see also Section IV.B – Biological Resources regarding recommended revegetation of disturbed areas).
3. **Physical Stabilization** shall be used where paths necessitate grading or grubbing. Physical stabilization could involve *geotextiles grasscrete, and mats, dust control, temporary stream crossings, construction road stabilization, and stabilized construction entrances*. These measures serve to effectively contain soil in place by physical means (e.g., geotextiles and mats hold soil in place until vegetation is restored, and water trucks keep loose soil moist to prevent wind erosion), or to avoid soil disturbance through physical improvements (e.g., stream crossings with culverts to allow stream flow at normal velocities without diverting natural course). These can include *alternate surfacing materials*, such as permeable materials from various manufacturers historically used by the City of San Diego for infrastructure and other construction projects for sediment/runoff control and vegetation stabilization. These products, which vary in form, design, material, and application generally serve to allow soil/sediment stabilization and/or help reestablish (or in some cases preclude establishment) of vegetation on exposed soils. In particular, some of these products could be used as a means of stabilization of new access paths in canyons and other environmentally sensitive lands. These products, which are applied to exposed soil in disturbed areas, cover the ground surface with a physical structure (usually made of plastic or other durable material) that traps sediment and prevents the formation of channels. These products allow a graded area to resist erosion from runoff, allow vegetation to re-establish itself (where desired), or can allow a road/path to remain unvegetated or with minimal vegetation (to allow ongoing access), while not precluding percolation of runoff and associated groundwater basin recharge potential. Application of such materials to access path construction would significantly reduce potential erosion/sedimentation impacts in the short- and long-term, and would not increase impermeable surface areas. As such, these products can effectively reduce runoff volumes and associated erosion/sedimentation and increase groundwater recharge.
4. **Diversification of Runoff** includes application of *earth dikes, temporary drains and swales, and slope drains*. These measures serve to divert runoff water by channeling water away from susceptible soils or disturbed areas.

5. **Velocity Reduction** measures would include *outlet protection, check dams, and slope roughening/terracing*. These BMPs prevent runoff traveling at high velocity from scouring/eroding soil material, through placement of riprap, rocks, logs or other materials, or terraces in the path of runoff.
6. **Sediment Trapping/Filtering** is an effective means of physically removing soil material from runoff flows, and includes *silt fences, straw bale barriers, sand bag barriers, brush or rock filters, storm drain inlet protection, sediment traps, and sediment basins*. These measures are designed to promote ponding or detention of sediment-laden runoff water upstream of their location by slowing the runoff velocity, allowing the solids to settle, and trapping the sediment behind the barrier. The sediment trapped by the BMPs is collected and properly disposed of prior to removal of the BMPs (or the point at which the BMPs become ineffective) to prevent flows from subsequent rains from carrying it downstream.
7. **Turbidity/Siltation** prevention measures include preparation so that runoff from steep, erodible surfaces shall be diverted into stable areas with little erosion potential. Measures shall be taken (diversion structures, energy dissipaters) to reduce the potential for erosion to occur. Erosion control measures shall be placed on dirt paths, cat tracks, or other work trails to control erosion. Water containing mud, silt, or other pollutants from aggregate washing or other activities shall not be allowed to leave the site unless appropriate BMPs are implemented. Temporary spoil sites shall be secured by appropriate BMPs to prevent transport of soil/sediment offsite.
8. **Pollution/Litter Control and Cleanup measures would include the following:**
 - Structures and associated materials not designed to withstand high seasonal flows shall be removed to areas above the high water mark before such flows occur.
 - Staging/storage areas for equipment and materials shall be located outside of the stream.
 - Raw cement/concrete or washings thereof, asphalt, paint or other coating materials, oil or other petroleum products, or any other substances which could be hazardous to aquatic life, resulting from project related activities shall be prevented from contaminating the soil and/or entering the waters of the State or U.S.
 - Through the use of appropriate BMPs, debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete or washings thereof, oil or petroleum products or other organic or earthen materials from any construction, or associated activity of whatever nature shall be not allowed to enter into or placed where it may be washed by rainfall or runoff into any waterways. No excess materials or debris shall be deposited within 150 feet of the high water mark of any stream or lake. When operations are completed, any excess materials or debris shall be removed from the work area, including all construction debris that remain from past sewer activities. Entry to access shall be gated to prevent unauthorized use. Trash and debris removal shall occur during routine maintenance.