



## San Diego Regional Water Quality Control Board

July 29, 2016

**Certified Mail – Return Receipt Requested**

Article Number: 7011 0470 0002 8952 8301

Mr. Mark Estoque  
Orange County Parks Design Division  
13042 Old Myford Road  
Irvine, CA 92602

**In reply/refer to:  
R9-2014-0110:808922:dbradford**

**Subject: Clean Water Act Section 401 Water Quality Certification No. R9-2014-0110  
for the Wagon Wheel Creek Restoration Plan Project**

Mr. Estoque:

Enclosed find Clean Water Act Section 401 Water Quality Certification No. R9-2014-0110 (Certification) issued by the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board ) in response to the application submitted by Orange County Parks Design Division for the Wagon Wheel Creek Restoration Plan 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.

Orange County Parks Design Division 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 Orange County Parks Design Division to enforcement actions by the San Diego Water Board including administrative enforcement orders requiring Orange County Parks Design Division 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.

Please submit all reports and information required under this Certification in electronic format via e-mail to [SanDiego@waterboards.ca.gov](mailto:SanDiego@waterboards.ca.gov). Documents over 50 megabytes will not be accepted via e-mail and must be placed on a disc and delivered to the San Diego Water Board, 2375 Northside Drive, San Diego, CA 92108. Each electronic document must be submitted as a single file, in Portable Document Format (PDF), and converted to text searchable format using Optical Character Recognition (OCR). All electronic documents must include scanned copies of all signature pages; electronic signatures will not be accepted. Electronic documents submitted to the San Diego Water Board must include the following

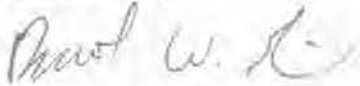
HENRY ABARBANEL, PH.D., CHAIR | DAVID GILSON, EXECUTIVE OFFICER

2375 Northside Drive, Suite 100, San Diego, California 92108-2700 | [www.waterboards.ca.gov/sandiego](http://www.waterboards.ca.gov/sandiego)

identification numbers in the header or subject line: Certification No. R9-2014-0110:808922:dbradford.

For questions or comments regarding the Certification, please contact Darren Bradford by telephone at (619) 521-3356 or by email at darren.bradford@waterboards.ca.gov.

Respectfully,



DAVID W. GIBSON  
Executive Officer

Enclosure:

Clean Water Act Section 401 Water Quality Certification No. R9-2014-0110 for the Wagon Wheel Creek Restoration Plan Project

DWG:jgs:eb:dlb

cc:

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State Water Resources Control Board,  
Division of Water Quality  
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Tech Staff Information	
Certification No.	R9-2014-0110
Party ID	529047
Reg. Meas. ID	307909
Place ID	808922
Person ID	524862
WDID	9000002753

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

2375 Northside Drive, Suite 100, San Diego, CA 92108  
Phone (619) 516-1990 • Fax (619) 516-1994  
<http://www.waterboards.ca.gov/sandiego/>

Clean Water Act Section 401 Water Quality Certification  
and Waste Discharge Requirements  
for Discharge of Dredged and/or Fill Materials

**PROJECT:**     **Wagon Wheel Creek Restoration Plan  
Certification Number R9-2014-0110  
WDID: 9000002753**

Reg. Meas. ID: 307909 Place ID: 808922 Party ID: 529047 Person ID: 524862
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**APPLICANT:**   **Orange County Parks Design Division  
13042 Old Myford Road  
Irvine, CA 92602**

**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"/> Enrollment in Isolated Waters Order No. 2004-004-DWQ
<input checked="" type="checkbox"/> Enrollment in SWRCB GWDR Order No. 2003-017-DWQ	

**PROJECT DESCRIPTION**

An application dated August 28, 2014 was submitted by Orange County Parks Design Division (hereinafter Applicant), for Water Quality Certification pursuant to section 401 of the Clean Water Act (United States Code (USC) Title 33, section 1341) for the proposed Wagon Wheel Creek Restoration Plan Project (Project). The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) deemed the application to be complete on June 16, 2016. 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 also applied for a Clean Water Act section 404 permit from the United States Army Corps of Engineers for the Project (USACE File No. SPL-2012-002640SM).

The Project is located within the City of Mission Viejo, Orange County, California within the General Thomas F. Riley Wilderness Park. The Project center reading is located at latitude 33.56682 and longitude -117.58356. The Applicant has paid all required application fees for this Certification in the amount of \$30,092.00. On an annual basis, the Applicant shall also pay all active discharge fees and post discharge monitoring fees, as appropriate<sup>1</sup>. On June 16,

<sup>1</sup> The Applicant shall pay an annual active discharge fee each fiscal year or portion of a fiscal year during which discharges occur until the regional water board or the State Water Resources Control Board (State Water Board) issues a Notice of Completion of Discharges Letter to the discharger. Dischargers shall pay an annual post-discharge monitoring fee each fiscal year or portion of a fiscal year commencing with the first fiscal year following the fiscal year in which the regional water board or State Water Board issued a Notice of Completion of Discharges Letter to the discharger, but continued water quality monitoring or compensatory mitigation monitoring is required. Dischargers shall pay the annual post-discharge monitoring fee each fiscal year until the regional water board or the State Water Board issues a Notice of Project Complete Letter to the

*(footnote continued on next page)*



2016, 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 stabilize Wagon Wheel Creek in order to protect the natural resources that are currently being lost due to continuous creek erosion, improve water quality, and enhance public safety. The Project includes strategic placement of lateral drains, bank and invert stabilization and erosion control features such as the use of native riparian, wetland, and upland plantings and a water quality filtration bio-swale. Project activities will be limited to "High" Priority Areas 1, 7, 8, and 9, plus the "medium" Priority Area 11. Currently there are neither plans nor budget to undertake restoration of the "Medium Priority" or "Low Priority" areas.

Area 1 activities consist of stabilizing the stream channel to prevent head cut erosion, which could progress upstream and compound the existing severe instability problems associated with creek bed down-cutting, channel-widening and bank erosion. Proposed activities include placing a new sheet pile structure approximately 73 feet upstream of the existing sheet pile and installing a rock channel with a 1-foot drop at the upstream and downstream ends. The rock channel is intended to increase the flood capacity while managing flow velocity. The damaged section of the existing sheet pile in the creek will be cut away to match the rock channel bed; the undamaged section of the existing sheet pile will be retained in place for overbank protection. Additionally, the scoured areas in the bank and overbank at the site of the existing sheet pile will be repaired with derrick stone and riprap.

Area 7 and Area 8 receive Oso Parkway culvert outflows which will be diverted to a 9,000 square foot bio-retention swale composed of sand and gravel layers approximately 24 inches thick prior to entering the creek. Storm and non-storm runoff from Oso Parkway will be diverted to the bio-swale to provide retention and filtration. The bio-retention swale will be constructed in an upland portion of Area 7. Overflow will be discharged through a pipe and rock energy dissipater to the creek, where a 24-inch concrete or soil cement weir, will be constructed at the point where severe erosion occurs. Riparian planting will be placed along the toe of both banks and riparian islands.

Area 8 activities include toe erosion control; stabilizing and protecting banks; improving hydraulic and sediment transport conditions; and establishing vegetation grids along the bank and across the channel. The existing slope and fill area will be modified by creating a bank stabilization system of multiple benches up to approximately 25 feet high. The bank stabilization system may include wood logs and panels, soils, and soil stabilization geogrid layers. The total length of this system is approximately 240 linear feet. A brush mattress placement and/or native riparian planting will be placed along the toe of both banks, and temporary depository logs will be used to form toe spurs to protect young plants from frequent flow impingement during plant establishment.

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*(footnote continued from previous page)*

discharger. Additional information regarding fees can be found electronically at the following location:  
[http://www.waterboards.ca.gov/water\\_issues/programs/cwa401/docs/dredgefillcalculator.xlsx](http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/dredgefillcalculator.xlsx)



Area 9 activities include; installation of two sheet pile structures with a maximum depth of 25 feet, a rock drop structure downstream of the existing pedestrian bridge, a rock weir, dense vegetation plantings downstream of the rock weir, sand and gravel berm with vegetation, derrick stone, placement of compacted fill/dirt, and riparian planting. The banks will be hydro-seeded and planted with deep-rooted native trees and shrubs. Loose materials are to be removed; steep slopes are to be flattened; and rocks are to be placed at the toe of the slope prior to seeding and planting.

Area 11 consists of two reaches situated between the Oso Parkway reinforced box culvert undercrossing at the upper end of the park and the existing gabion drop structure downstream. The improvement strategy at this location involves managing erosion by creating two bio-retention areas in the wide channel to control flows during dry weather, flash flood, and frequent storm periods. Emergent wetland plants will be proposed on both sides of the bank. A vegetation island that crosses the creek will be placed near the second bio-retention area. These improvements are expected to enhance water quality by detention and infiltration within the large channel and the wide floodplain. However, the detention area would not eliminate critical erosion problems in the creek, but would reduce the erosion risk and promote creek health and successful plant establishment that will help moderate the aggressive down cutting and widening process in the problem reaches.

A flow-control berm with a bypass culvert will be implemented near the upstream end of the narrow channel. Splitting the peak flow from a narrow channel into a wide floodplain will increase storm water infiltration and bio-filtration and will support water quality improvement and habitat enhancement.

With the phased restoration and enhancement of the creek's natural ecological process proposed by the Project, it is anticipated that the severely impacted areas would be repaired over time and that the existing stable reaches would be protected from severe erosion in the future. Project goals include flood and erosion management, bio-retention, infiltration and filtration of urban runoff from surrounding areas, and improved water quality of the downstream receiving waters. The oak woodland establishment areas that are located outside of the project improvement areas will improve adjacent buffer conditions by removing non-native plant species and establishing native woodland plant species. The establishment of native woodland and riparian species within and adjacent to the Project area will enhance wildlife opportunities in terms of nesting, foraging, roosting, denning, dispersal, and local/regional movement.

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 and post-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 0.124 acre (1,067 linear feet) of streambed 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 0.124 acre of jurisdictional waters will be achieved through the establishment and rehabilitation of 1.91 acres (2,680 linear feet) of waters of the United States and/or State. 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 will be completed by the Applicant at on-site located in the Canada Gobernadora hydrologic sub-area (HSA 901.24) at a minimum compensation ratio of 15.43:1 (area mitigated:area impacted).

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 are described in the *Habitat Restoration Mitigation and Monitoring Plan Wagon Wheel Creek Restoration and Stormwater Management Project* (Mitigation Plan), dated March 25, 2016. San Diego Water Board acceptance of the Mitigation Plan 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. The Mitigation Plan is incorporated in this Certification by reference as if set forth herein. The Mitigation Plan provides for implementation of compensatory mitigation which 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. Implementation of the Mitigation Plan will reduce significant environmental impacts to resources within the San Diego Water Board's purview to a less than significant level. Based on all of these considerations, the Mitigation Plan 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 Figures
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. R9-2014-0110 (Certification) shall expire upon a) the expiration or retraction of the Clean Water Act section 404 (33 USC Title 33, section 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](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 USC section 1313). The Basin Plan is accessible at:

[http://www.waterboards.ca.gov/sandiego/water\\_issues/programs/basin\\_plan/index.shtml](http://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/index.shtml)

- 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 Board 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 Wagon Wheel 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.
- M. **Petitions.** Any person aggrieved by this action of the San Diego Water Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with the California Code of Regulations, title 23, sections 3867 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Certification. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: [http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality](http://www.waterboards.ca.gov/public_notices/petitions/water_quality) or will be provided upon request.



### 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 discharge, 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/>.
- 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 Wagon Wheel Creek or its tributaries. 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.
- Q. **Groundwater Dewatering.** If groundwater dewatering is required for the Project, the Applicant shall enroll in and comply with the requirements of San Diego Water Board Order No. R9-2008-0002 NPDES No. CAG919002, *General Waste Discharge Requirements For Groundwater Extraction Waste Discharges From Construction, Remediation, and Permanent Groundwater Extraction Projects to Surface Waters within the San Diego Region Except for San Diego Bay or its successor permit.*

#### 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 on-site 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 Wagon Wheel Creek and its unnamed tributaries within the San Juan Watershed must not exceed the type and magnitude of impacts described in the table below. At a minimum, compensatory mitigation required to offset unavoidable temporary and 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)
<b>Permanent Impacts</b>						
Stream Channel	0.124	1,067	0.033 Establishment <sup>1</sup> 1.88 Rehabilitation <sup>2</sup>	15.43:1	65 Establishment 2,615 Rehabilitation	2.51:1
<b>Temporary Impacts<sup>3</sup></b>						
Streambed and Riparian	0.255	1,162	NA	NA	NA	NA

1. Wetland establishment within Area 11.
2. Streambed and riparian rehabilitation in Areas 1, 8, 9, and 11 through channel stabilization, revegetation activities, non-native vegetation eradication, and planting/seeding of oak woodland and sycamore woodland plant species in and adjacent to the stream channel.
3. All areas of temporary impacts must be restored to pre-project contours and re-vegetated with native species.

- C. Compensatory Mitigation Plan Implementation.** The Applicant must fully and completely implement the Mitigation Plan; any deviations from, or revisions to, the Mitigation Plan must be pre-approved by the San Diego Water Board.
- D. Performance Standards.** Compensatory mitigation required under this Certification shall be considered achieved once it has met the ecological success performance standards contained in the Mitigation Plan (Section 6, page 19) to the satisfaction of the San Diego Water Board.
- E. Compensatory Mitigation Site Design.** The compensatory mitigation site(s) shall be designed to be self-sustaining once performance standards have been achieved. This includes minimization of active engineering features (e.g., pumps) and appropriate siting to ensure that natural hydrology and landscape context support long-term sustainability in conformance with the following conditions:
1. Most of the channels through the mitigation sites shall be characterized by equilibrium conditions, with no evidence of severe aggradation or degradation;
  2. As viewed along cross-sections, the channel and buffer area(s) shall have a variety of slopes, or elevations, that are characterized by different moisture gradients. Each sub-slope shall contain physical patch types or features that contribute to irregularity in height, edges, or surface and to complex topography overall; and

3. The mitigation sites shall have a well-developed plant community characterized by a high degree of horizontal and vertical interspersion among plant zones and layers.

- F. **Temporary Project Impact Areas.** The Applicant must restore all areas of temporary impacts and all other areas of temporary disturbance which could result in a discharge or a threatened discharge of pollutants to waters of the United States and/or State. Restoration must include grading of disturbed areas to pre-project contours and re-vegetation with native species. Restoration activities must be consistent with the methods identified in the Mitigation Plan and maintained free of non-native plant species for a minimum period of five years. The Applicant must implement all necessary BMPs to control erosion and runoff from areas associated with the Project.
- G. **Long-Term Management and Maintenance.** The compensatory mitigation site(s) must be managed, protected, and maintained, in perpetuity, in conformance with the long-term management plan and the final ecological success performance standards identified in the Mitigation Plan. The aquatic habitats, riparian areas, buffers and uplands that comprise the mitigation site(s) must be protected in perpetuity from land-use and maintenance activities that may threaten water quality or beneficial uses within the mitigation area(s) in a manner consistent with the following requirements:
1. Any maintenance activities on the mitigation site(s) that do not contribute to the success of the mitigation site(s) and enhancement of beneficial uses and ecological functions and services are prohibited;
  2. Maintenance activities must be limited to the removal of trash and debris, removal of exotic plant species, replacement of dead native plant species, and remedial measures deemed necessary for the success of the compensatory mitigation project;
  3. The Mitigation site(s) must be maintained, in perpetuity, free of perennial exotic plant species including, but not limited to, pampas grass, giant reed, tamarisk, sweet fennel, tree tobacco, castor bean, and pepper tree. Annual exotic plant species must not occupy more than 5 percent of the mitigation site(s); and
  4. If at any time a catastrophic natural event (e.g., fire, flood) causes damage(s) to the mitigation site(s) or other deficiencies in the compensatory mitigation project, the Applicant must take prompt and appropriate action to repair the damage(s) including replanting the affected area(s) and address any other deficiencies. The San Diego Water Board may require additional monitoring by the Applicant to assess how the compensatory mitigation site(s) or project is responding to a catastrophic natural event.
- H. **Timing of Mitigation Site Construction.** The construction of proposed mitigation must be concurrent with project grading and completed no later than 9 months following the start of Project construction. Delays in implementing mitigation must be compensated for by an increased mitigation implementation of 10% of the cumulative compensatory mitigation for each month of delay.

- I. **Mitigation Site(s) Preservation Mechanism.** Within 90 days from the issuance of this Certification, the Applicant must provide the San Diego Water Board with a draft preservation mechanism (e.g. deed restriction, conservation easement, etc.) that will protect all mitigation areas and their buffers in perpetuity. Within one year of the start of Project construction, the Applicant must submit proof of a completed final preservation mechanism that will protect all mitigation areas and their buffers in perpetuity. The conservation easement, deed restriction, or other legal limitation on the mitigation properties must be adequate to demonstrate that the sites will be maintained without future development or encroachment on the sites which could otherwise reduce the functions and values of the sites for the variety of beneficial uses of waters of the United States and/ or State that it supports. The legal limitation must prohibit, without exception, all residential, commercial, industrial, institutional, and transportation development, and any other infrastructure development that would not maintain or enhance the wetland and streambed functions and values of the sites. The preservation mechanism must clearly prohibit activities that would result in soil disturbance or vegetation removal, other than the removal of non-native vegetation. Other infrastructure development to be prohibited includes, but is not limited to, additional utility lines, maintenance roads, and areas of maintained landscaping for recreation.

## 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:
  1. The date, exact place, and time of sampling or measurements;
  2. The individual(s) who performed the sampling or measurements;
  3. The date(s) analyses were performed;
  4. The individual(s) who performed the analyses;
  5. The analytical techniques or methods used; and
  6. The results of such analyses.



- E. **California Rapid Assessment Method.** California Rapid Assessment Method (CRAM)<sup>2</sup> monitoring must be performed to assess the current and potential ecological conditions (ecological integrity) of the impact site and proposed compensatory mitigation site(s). These conditions reflect the overall level of ecological function of an aquatic resource. Prior to initiating Project construction, the Applicant shall develop a monitoring plan to implement California Rapid Assessment Method (CRAM) monitoring. The Applicant must conduct a quantitative function-based assessment of the health of streambed habitat to establish pre-project baseline conditions, set CRAM success criteria, and assess the mitigation site(s) progress towards meeting the success criteria. CRAM monitoring must be conducted prior to the start of Project construction authorized under this Certification and annually following construction completion for a period of 5 years. The annual CRAM monitoring results shall be submitted with the Annual Project Progress Report. An evaluation, interpretation, and tabulation of all CRAM assessment data shall be submitted with the Final Project Completion Report.
- F. **Geographic Information System Data.** The Applicant must submit Geographic Information System (GIS) shape files of the Project impact sites within 30 days of the start of project construction and GIS shape files of the Project mitigation sites within 30 days of mitigation installation. All impact and mitigation site shape files must be polygons. Two GPS readings (points) must be taken on each line of the polygon and the polygon must have a minimum of 10 points. GIS metadata must also be submitted.
- G. **Identify Upstream Retrofitting Projects. Within 5 years from the issuance of this Certification,** the Applicant must identify areas of existing development upstream as candidates for retrofitting that may be utilized to address storm water runoff flows and durations that cause or contribute to hydromodification in Wagon Wheel Creek and its tributaries.
- H. **Annual Project Progress Reports.** The Applicant must submit annual Project progress reports describing status of BMP implementation, compensatory mitigation, and compliance with all requirements of this Certification to the San Diego Water Board prior to **March 1** of each year following the issuance of this Certification, until the Project has reached completion. The Annual Project Progress Reports must contain compensatory mitigation monitoring information sufficient to demonstrate how the compensatory mitigation project is progressing towards accomplishing its objectives and meeting its performance standards. Annual Project Progress Reports must be submitted even if Project construction has not begun. The monitoring period for each Annual Project Progress Report shall be January 1<sup>st</sup> through December 31<sup>st</sup> of each year. Annual Project Progress Reports must include, at a minimum, the following:
1. **Project Status and Compliance Reporting.** The Annual Project Progress Report must include the following Project status and compliance information:
    - a. The names, qualifications, and affiliations of the persons contributing to the report;

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<sup>2</sup> The most recent versions of the California Rapid Assessment Method (CRAM) for Wetlands and additional information regarding CRAM can be accessed at <http://www.cramwetlands.org/>

- b. The status, progress, and anticipated schedule for completion of Project construction activities including the installation and operational status of best management practices project features for erosion and storm water quality treatment;
  - c. A description of Project construction delays encountered or anticipated that may affect the schedule for construction completion; and
  - d. A description of each incident of noncompliance during the annual monitoring period and its cause, the period of the noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
2. **Compensatory Mitigation Monitoring Reporting.** Mitigation monitoring information must be submitted as part of the Annual Project Progress Report for a period of not less than five years, sufficient to demonstrate that the compensatory mitigation project has accomplished its objectives and met ecological success performance standards contained in the Mitigation Plan. Following Project implementation the San Diego Water Board may reduce or waive compensatory mitigation monitoring requirements upon a determination that performance standards have been achieved. Conversely the San Diego Water Board may extend the monitoring period beyond five years upon a determination that the performance standards have not been met or the compensatory mitigation project is not on track to meet them. The Annual Project Progress Report must include the following compensatory mitigation monitoring information:
- a. Names, qualifications, and affiliations of the persons contributing to the report;
  - b. An evaluation, interpretation, and tabulation of the parameters being monitored, including the results of the Mitigation Plan monitoring program, and all quantitative and qualitative data collected in the field;
  - c. A description of the following mitigation site(s) characteristics:
    - i. Detritus cover;
    - ii. General topographic complexity;
    - iii. General upstream and downstream habitat and hydrologic connectivity; and
    - iv. Source of hydrology
  - d. Monitoring data interpretations and conclusions as to how the compensatory mitigation project(s) is progressing towards meeting performance standards and whether the performance standards have been met;
  - e. A description of the progress toward implementing a plan to manage the compensatory mitigation project after performance standards have been achieved to ensure the long term sustainability of the resource in perpetuity,

- including a discussion of long term financing mechanisms, the party responsible for long term management, and a timetable for future steps;
- f. Qualitative and quantitative comparisons of current mitigation conditions with pre-construction conditions and previous mitigation monitoring results;
  - g. Stream photo documentation, including all areas of permanent and temporary impact, prior to and after mitigation site construction. Photo documentation must be conducted in accordance with guidelines posted at [http://www.waterboards.ca.gov/sandiego/water\\_issues/programs/401\\_certification/docs/401c/401PhotoDocRB9V713.pdf](http://www.waterboards.ca.gov/sandiego/water_issues/programs/401_certification/docs/401c/401PhotoDocRB9V713.pdf). In addition, photo documentation must include Geographic Positioning System (GPS) coordinates for each of the photo points referenced;
  - h. A qualitative comparison to adjacent preserved streambed areas;
  - i. The results of the California Rapid Assessment Method (CRAM) monitoring required under section VI.E of this Certification;
  - j. A summary of restoration and maintenance activities and photos of the temporary impact areas;
  - k. As-built drawings of the compensatory mitigation project site(s), no bigger than 11"X17";
  - l. A survey report documenting boundaries of the compensatory mitigation site(s); and
  - m. A summary of areas of existing development upstream identified as candidates for retrofitting that may be utilized to address storm water runoff flows and durations that cause or contribute to hydromodification in Wagon Wheel Creek and its tributaries.
- l. **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. Photo documentation of implemented post-construction BMPs and 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/401c/401PhotoDocRB9V713.pdf](http://www.waterboards.ca.gov/sandiego/water_issues/programs/401_certification/docs/401c/401PhotoDocRB9V713.pdf). In addition, photo documentation must include Global Positioning System (GPS) coordinates for each of the photo points referenced; and

6. An evaluation, interpretation, and tabulation of all California Rapid Assessment Method (CRAM) data collected throughout the term of Project construction in accordance with section VI.E of this Certification.
- J. **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.
- K. **Electronic Document Submittal.** The Applicant must submit all reports and information required under this Certification in electronic format via e-mail to [SanDiego@waterboards.ca.gov](mailto:SanDiego@waterboards.ca.gov). Documents over 50 megabytes will not be accepted via e-mail and must be placed on a disc and delivered to:

California Regional Water Quality Control Board  
San Diego Region  
Attn: 401 Certification No. R9-2014-0110:808922:dbradford  
2375 Northside Drive, Suite 100  
San Diego, California 92108

Each electronic document must be submitted as a single file, in Portable Document Format (PDF), and converted to text searchable format using Optical Character Recognition (OCR). All electronic documents must include scanned copies of all signature pages; electronic signatures will not be accepted. Electronic documents submitted to the San Diego Water Board must include the following identification numbers in the header or subject line: Certification No. R9-2014-0110:808922:dbradford.

- L. **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.

- M. **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."*

## 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 as provided in Water Code section 13271(b), 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 Orange, 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 as provided in Water Code section 13272(b), 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. **Commencement of Construction Notification.** The Applicant must notify the San Diego Water Board in writing at least 5 days prior to the start of initial Project construction ground disturbance.
- F. **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 responsibility for compliance with this Certification in the event that a transferee fails to comply.

#### VIII. CALIFORNIA ENVIRONMENTAL QUALITY ACT COMPLIANCE

- A. The County of Orange 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 June 30, 2014 for the Final Initial Study/Mitigated Negative Declaration (IS/MND) titled Draft Initial Study/Mitigated Negative Declaration IP 12-142 Wagon Wheel Creek Restoration Plan (State Clearing House Number 2014041030). 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 IS/MND 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 IS/MND 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 IS/MND, 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 sections V and 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

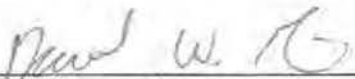
Darren Bradford, Environmental Scientist  
Telephone: (619) 521-3356  
Email: [darren.bradford@waterboards.ca.gov](mailto:darren.bradford@waterboards.ca.gov)

#### X. WATER QUALITY CERTIFICATION

I hereby certify that the proposed discharge from the **Wagon Wheel Creek Restoration Plan** (Certification No. R9-2014-0110) 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. R9-2014-0110 issued on July 29, 2016.

  
\_\_\_\_\_  
DAVID W. GIBSON  
Executive Officer  
San Diego Water Board

29 July 2016  
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.

**Waters of the State** - means any surface water or groundwater, including saline waters, within the boundaries of the State. [Water Code section 13050, subd. (e)].

Orange County Parks  
Wagon Wheel Creek Restoration Plan Project  
Certification No. R9-2014-0110

**ATTACHMENT 2**  
**PROJECT LOCATION MAPS**

- Figure 1 – Location Map
- Figure 2 – Drainage Boundary Map
- Figure 3 – Key Map
- Figure 4 – Stream Profile



Figure 1

Location Map

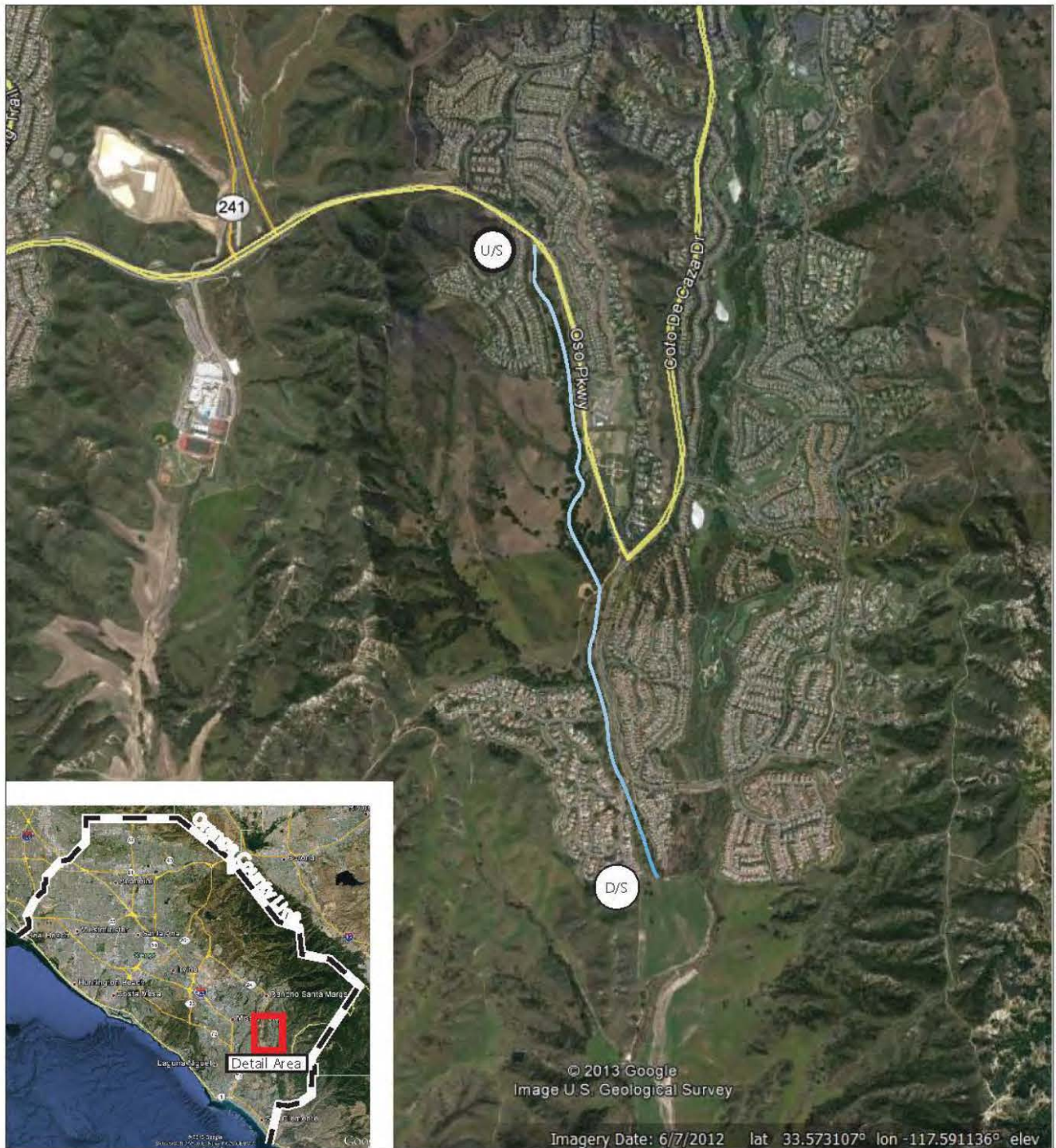
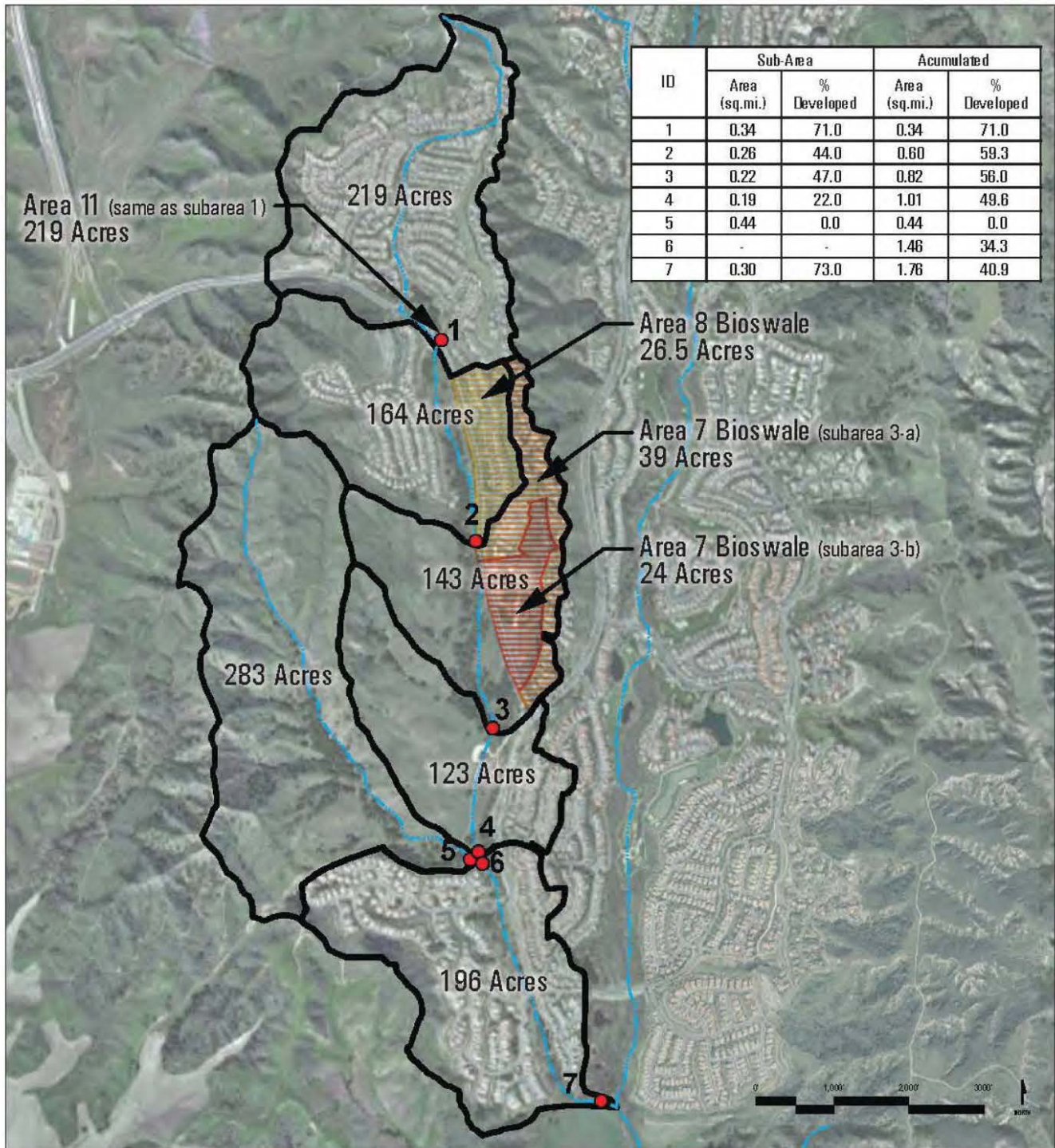




Figure 2

Drainage Boundary Map





Key Map

Figure 3

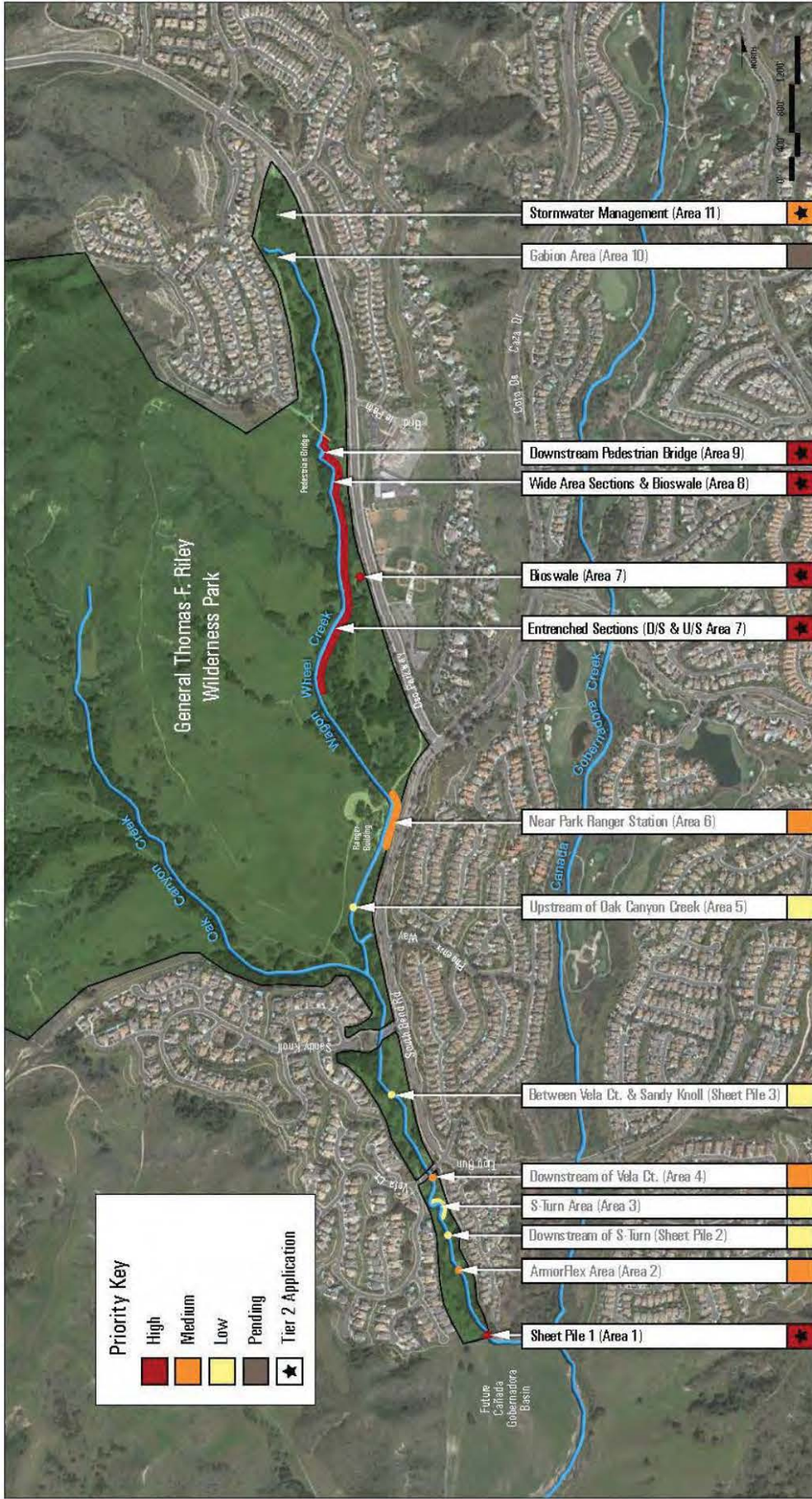
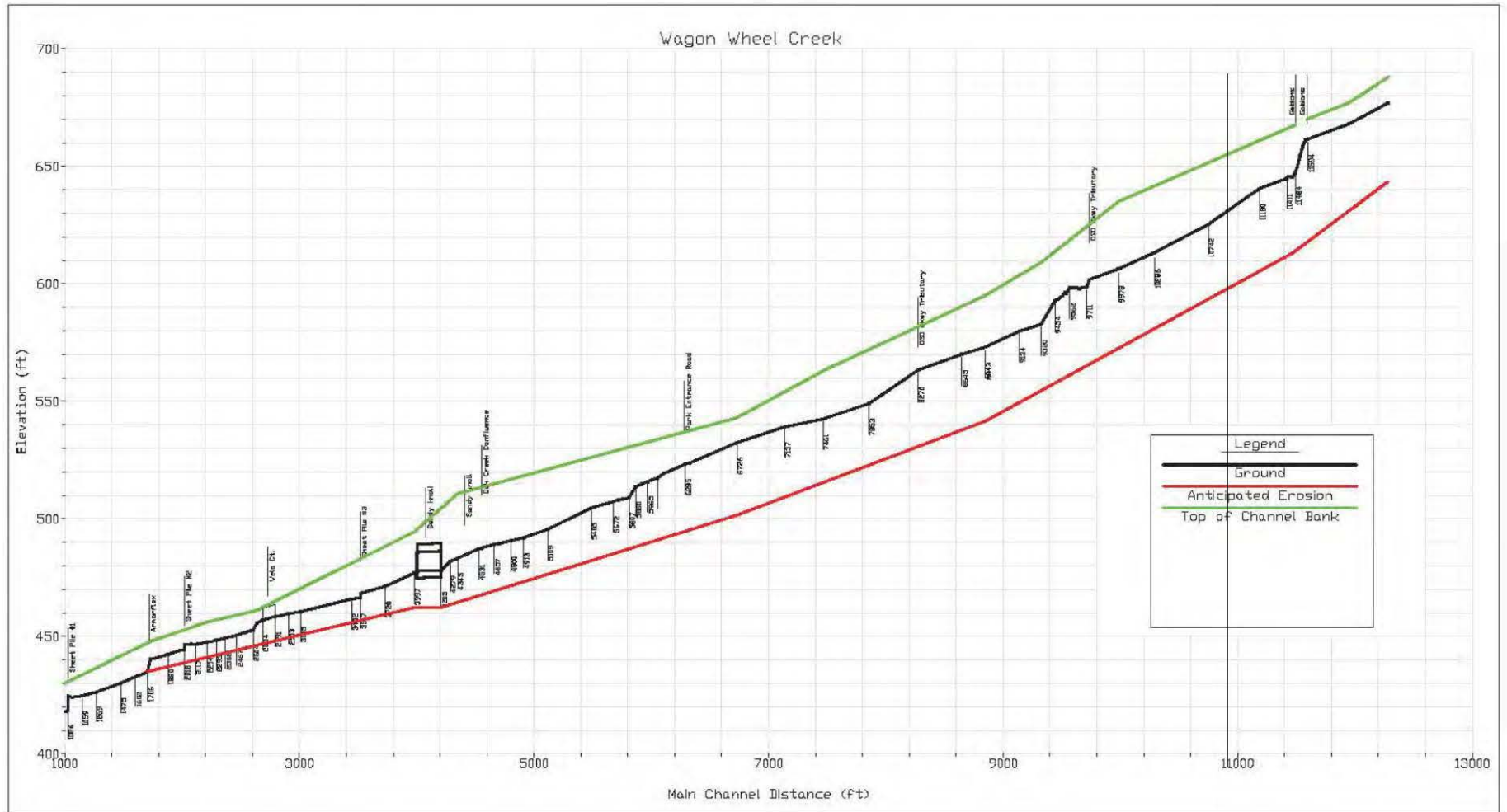




Figure 4

Stream Profile



Orange County Parks  
Wagon Wheel Creek Restoration Plan Project  
Certification No. R9-2014-0110

**ATTACHMENT 3  
PROJECT SITE PLANS**

- Figure A-1 – Area 1-Sheet Pile 1
- Figure A-2 – Combined Area 7/Area 8 Bioswale
- Figure A-3 – Area 8-Wide Area Section
- Figure A-4 – Area 9-Downstream of Pedestrian Bridge
- Figure A-5 – Area 11-Stormwater Management Area

Figure A-1

Area 1 - Sheet Pile 1

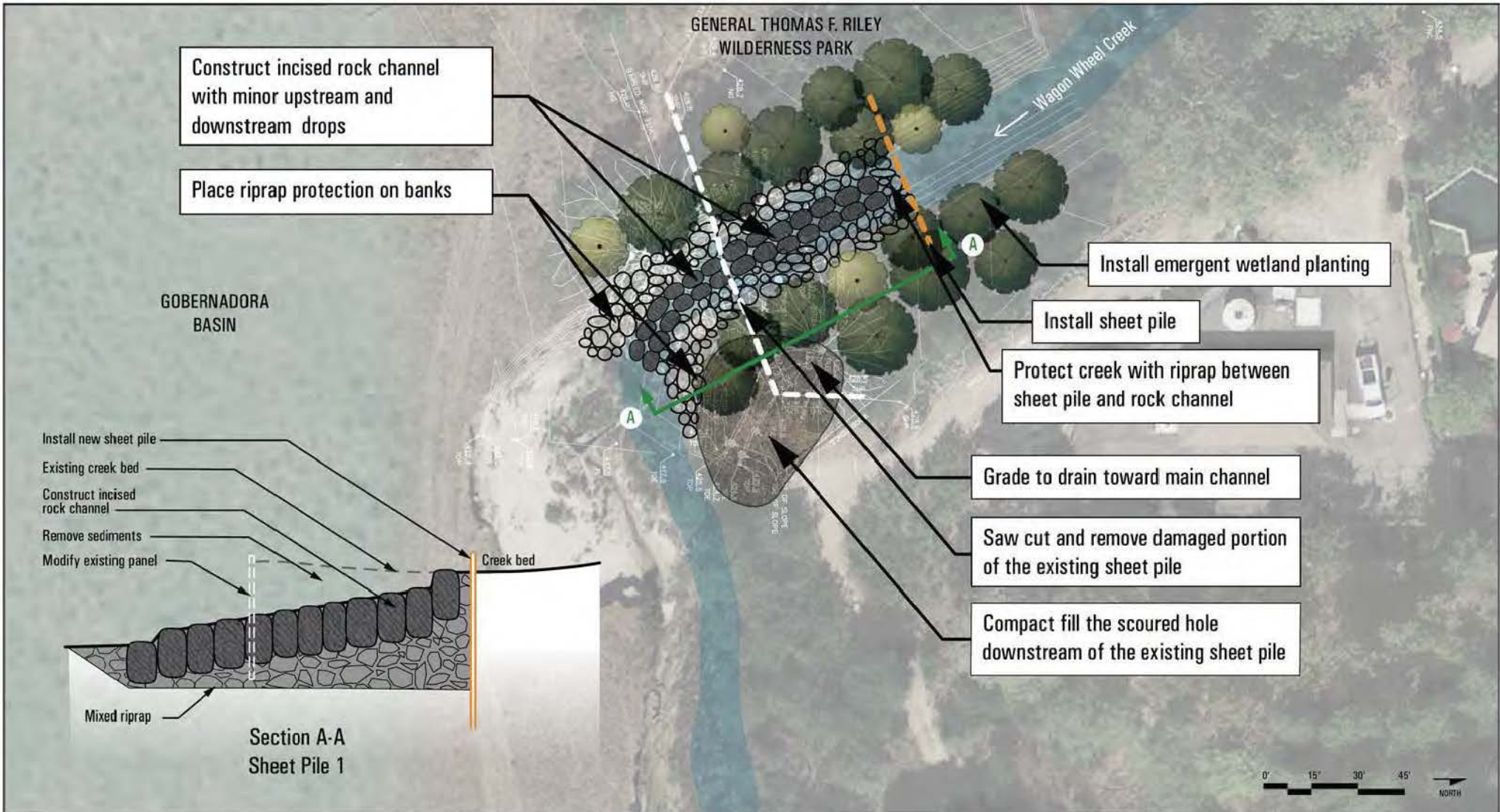




Figure A-2

Combined Area 7/Area 8 Bioswale

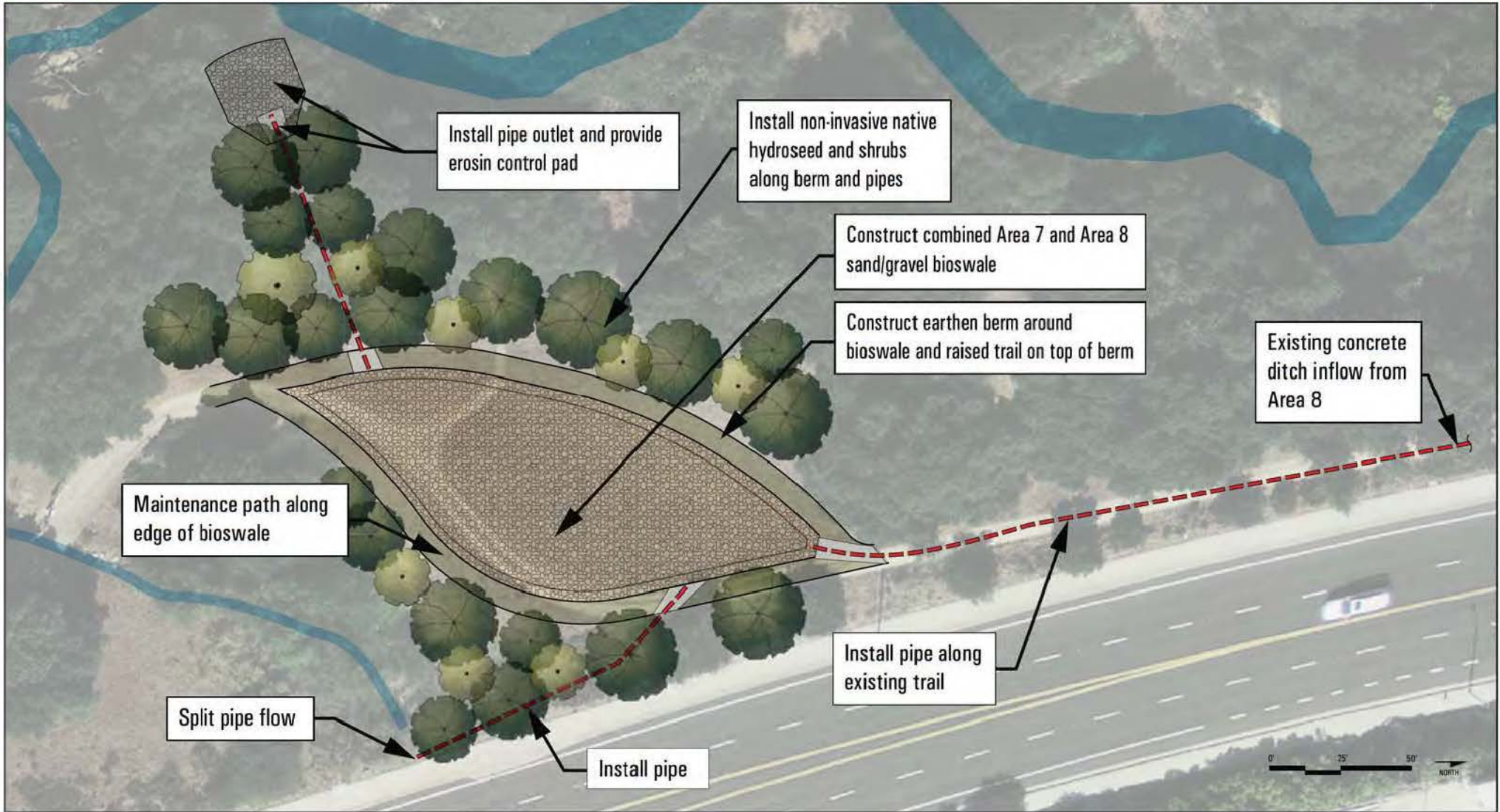




Figure A-3

Area 8 - Wide Area Section

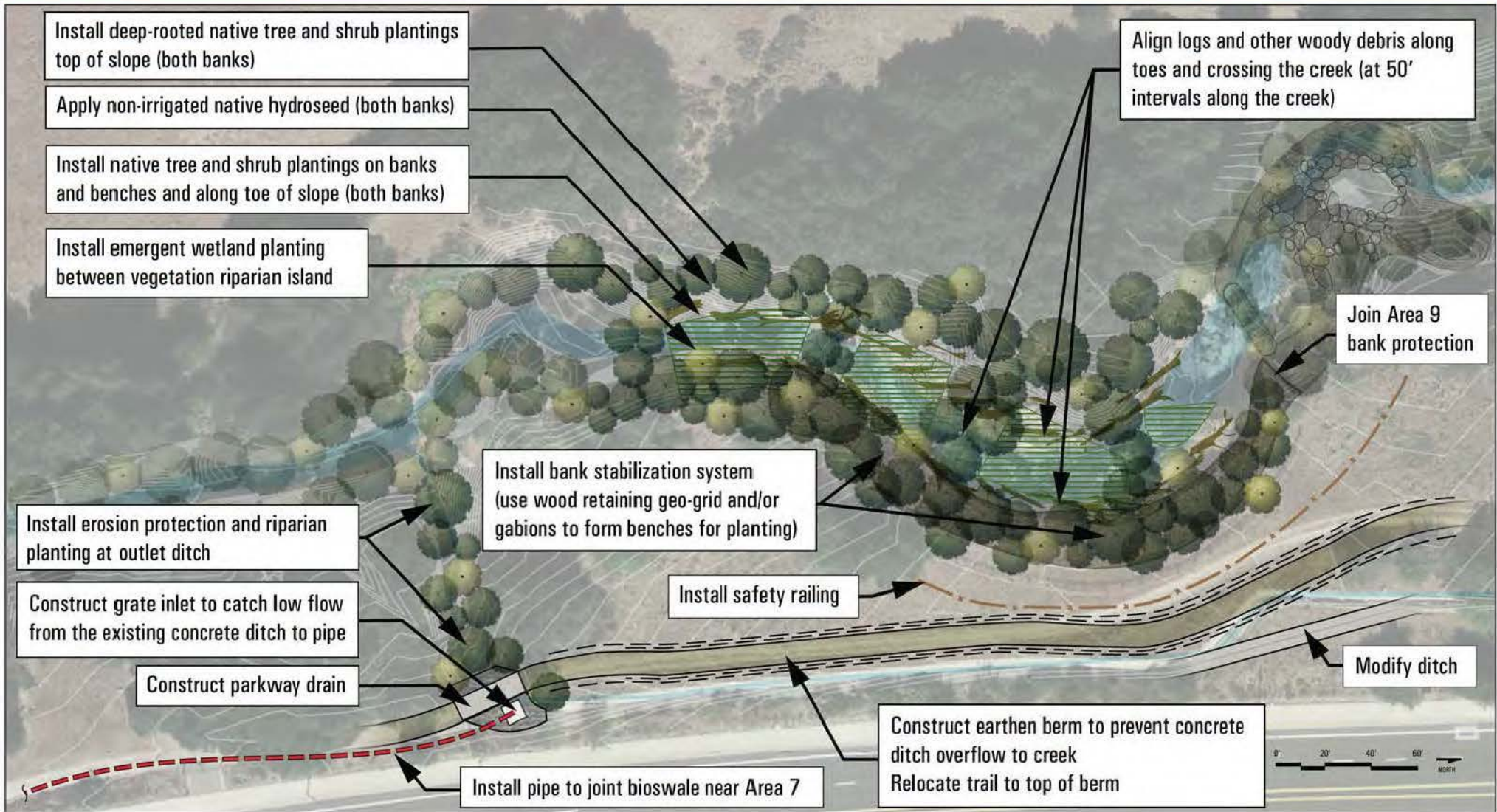




Figure A-4

Area 9 - Downstream of Pedestrian Bridge

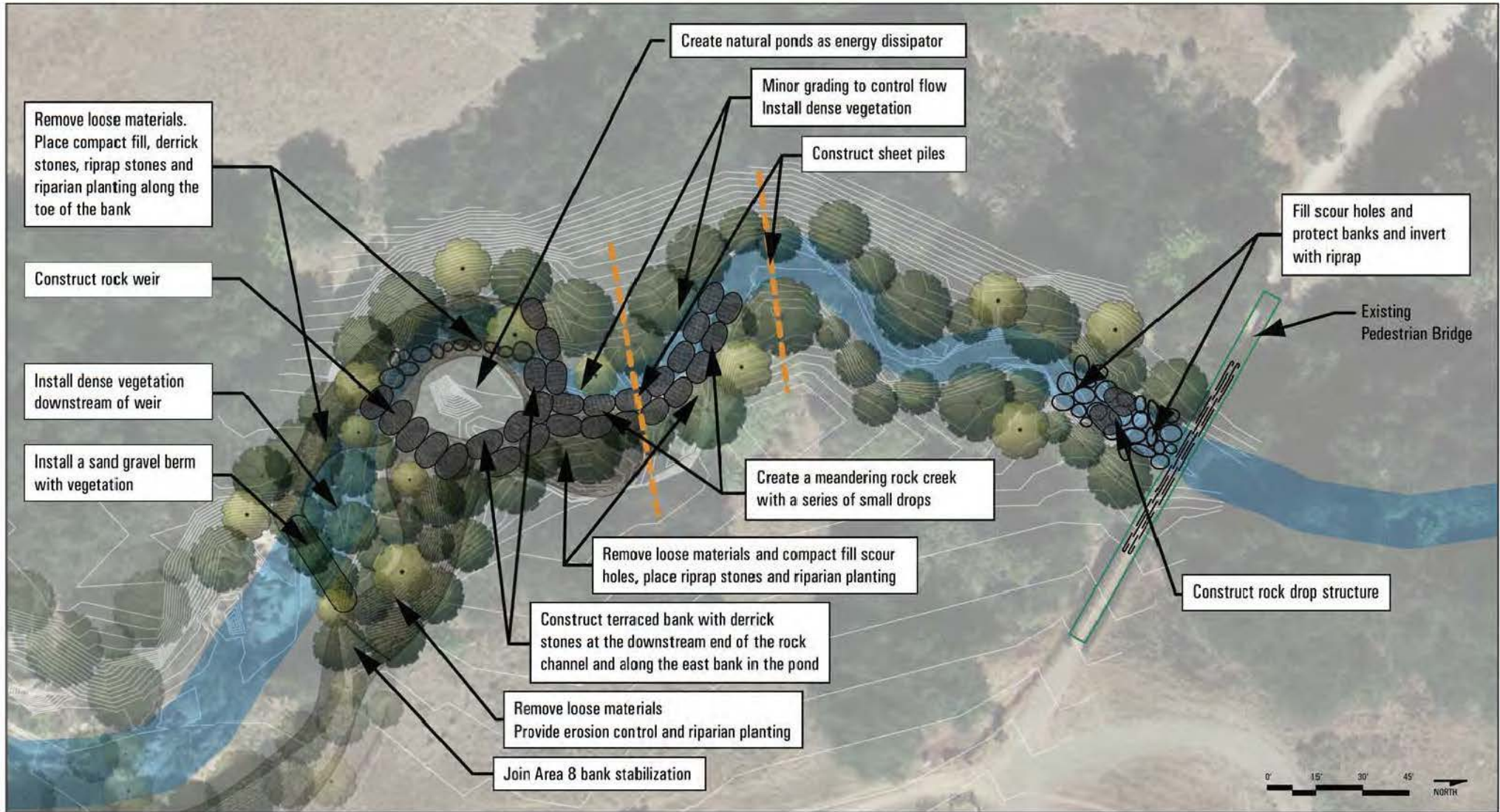
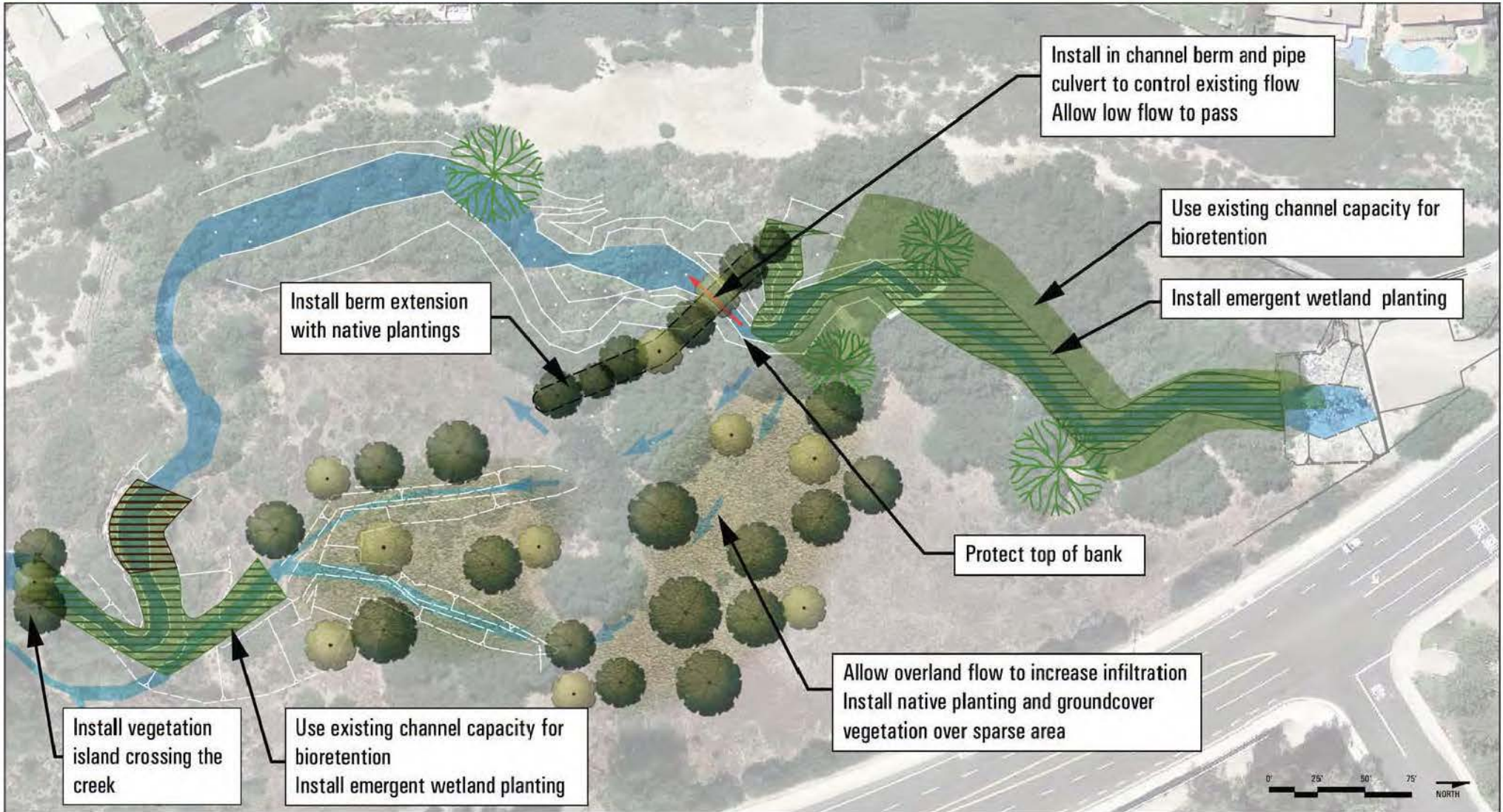




Figure A-5

Area 11 - Stormwater Management



Orange County Parks  
Wagon Wheel Creek Restoration Plan Project  
Certification No. R9-2014-0110

**ATTACHMENT 4  
MITIGATION FIGURES**

Exhibit 1 – Project Location  
Exhibit 2a – Project Impacts-Maintenance Area 1  
Exhibit 2b – Project Impacts-Maintenance Area 7/8 Bioswale  
Exhibit 2c – Project Impacts-Maintenance Areas 8, and 9  
Exhibit 2d – Project Impacts-Maintenance Area 11  
Exhibit 3a - Mitigation Concept - Maintenance Area 1  
Exhibit 3b - Mitigation Concept - Maintenance Areas 8 and 9  
Exhibit 3c - Mitigation Concept - Maintenance Area 11





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Aerial Source: NAIP 2014

**Project Location**  
*Wagon Wheel Creek Restoration and Stormwater Management*

**Exhibit 1**





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**Project Impacts**

-  Permanent
-  Temporary

**Vegetation Types and Other Areas**

-  Annual Grassland
-  Southern Sycamore Riparian Woodland
-  Southern Coast Live Oak Riparian Forest
-  Disturbed

**Jurisdictional Resources**

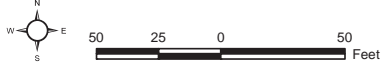
-  USACE Non-Wetland "Waters of the U.S."
-  CDFW Jurisdictional Resource

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Aerial Source: NAIP 2014

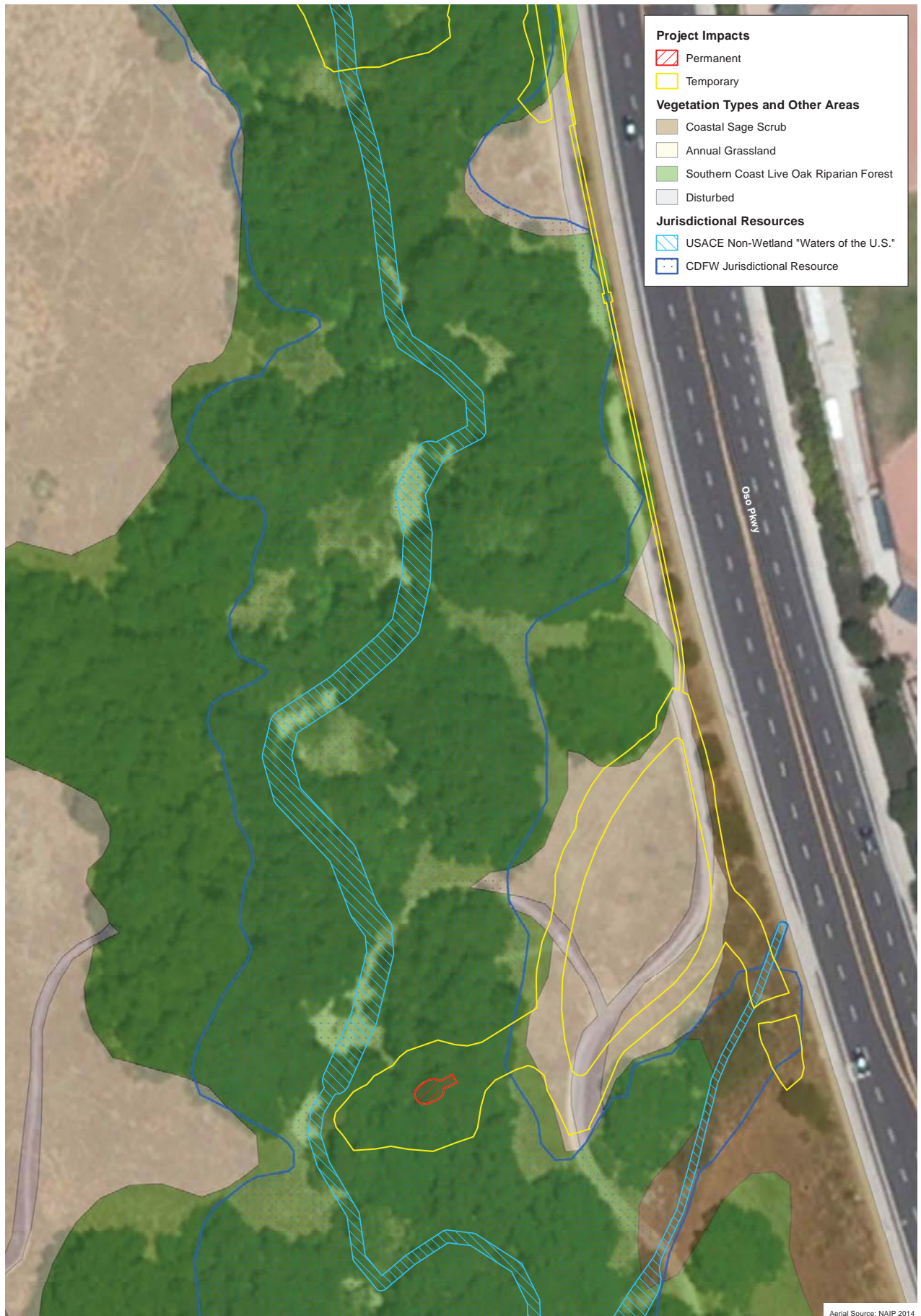
**Project Impacts - Maintenance Area 1**  
*Wagon Wheel Creek Restoration and Stormwater Management*

**Exhibit 2a**



(Rev. 03-17-2016 LEW) R:\Projects\OCP\Projects\010\020\020\HRMPE2\_ID\_Impacts\_20160314.pdf





**Project Impacts**

- Permanent
- Temporary

**Vegetation Types and Other Areas**

- Coastal Sage Scrub
- Annual Grassland
- Southern Coast Live Oak Riparian Forest
- Disturbed

**Jurisdictional Resources**

- USACE Non-Wetland "Waters of the U.S."
- CDFW Jurisdictional Resource

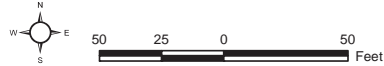
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Aerial Source: NAIP 2014

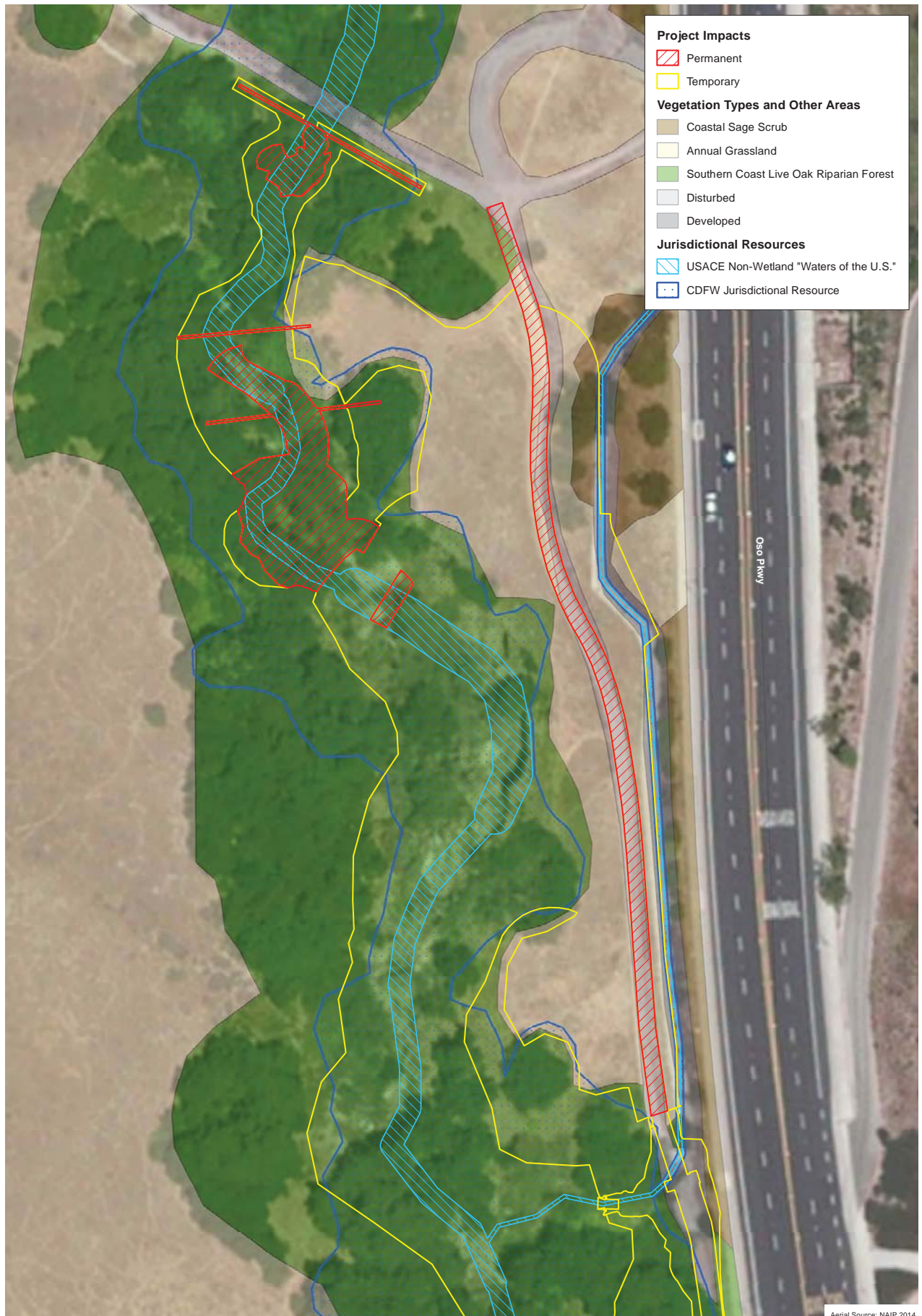
**Project Impacts - Maintenance Area 7/8 Bioswale**

**Exhibit 2b**

*Wagon Wheel Creek Restoration and Stormwater Management*





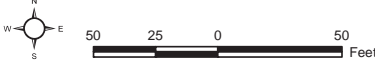


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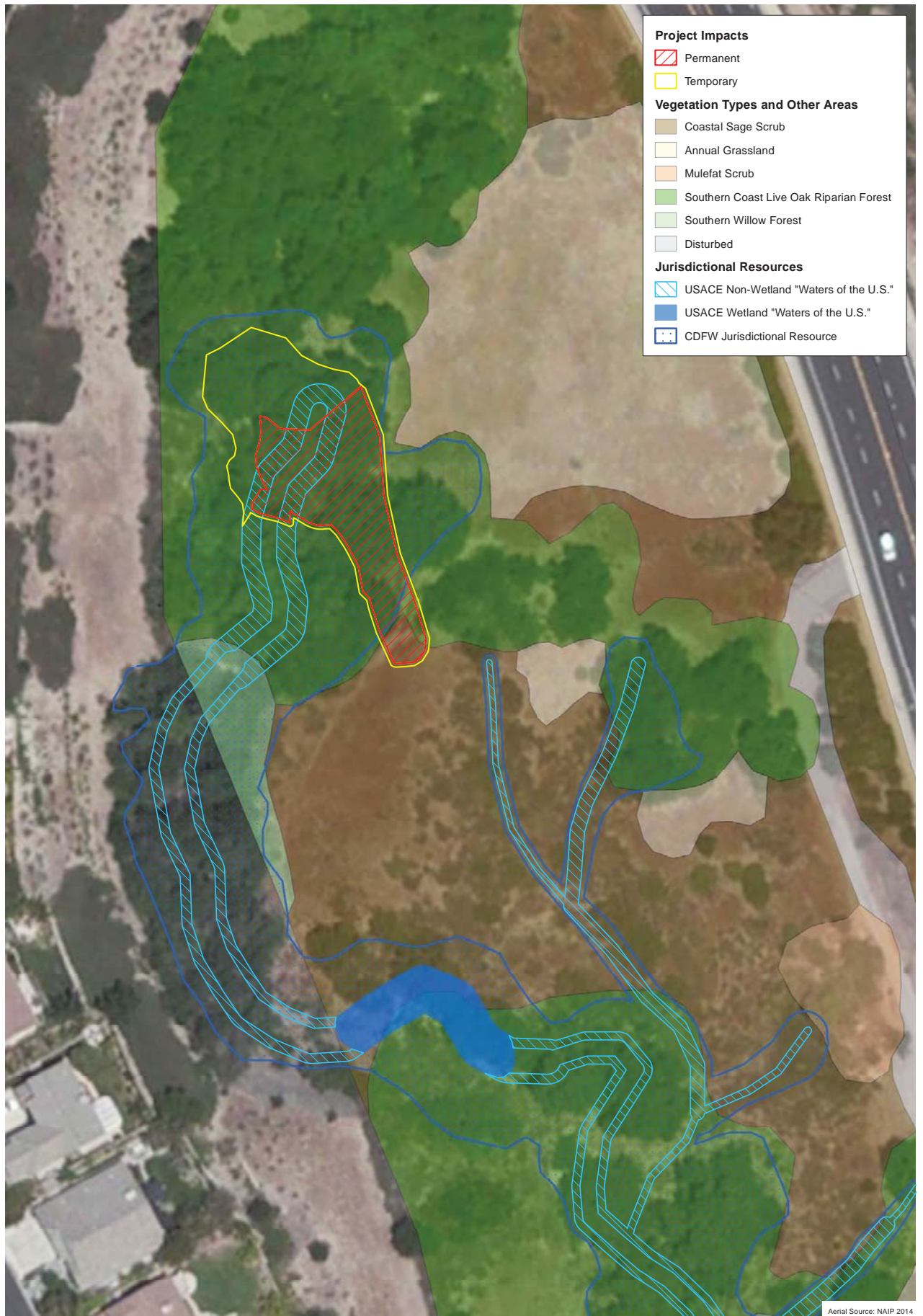
Aerial Source: NAIP 2014

**Project Impacts - Maintenance Areas 8, and 9**  
*Wagon Wheel Creek Restoration and Stormwater Management*

Exhibit 2c



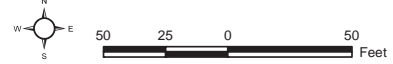




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**Project Impacts - Maintenance Area 11**  
*Wagon Wheel Creek Restoration and Stormwater Management*

Exhibit 2d







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Aerial Source: NAIP 2014

**Mitigation Concept – Maintenance Area 1**

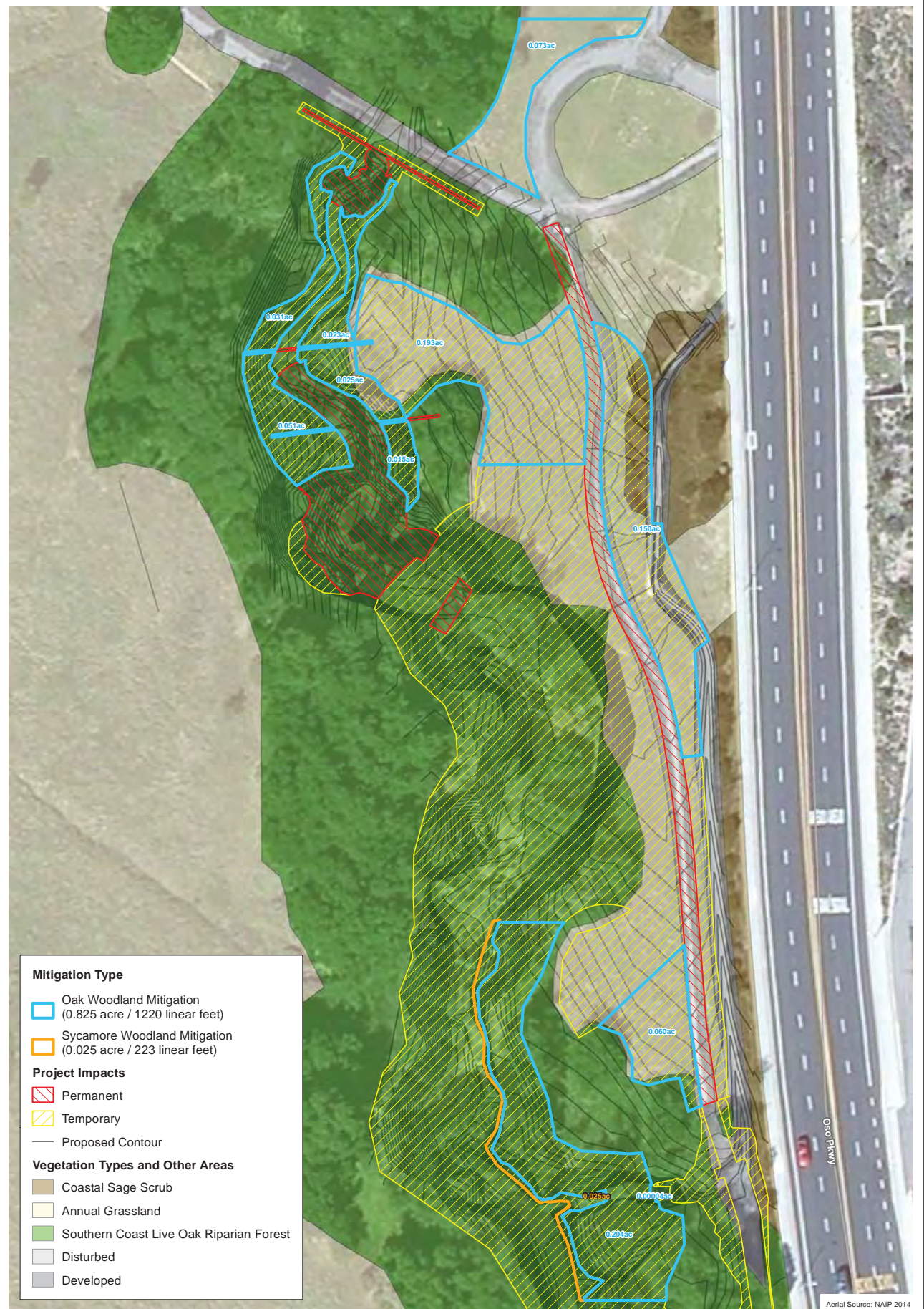
**Exhibit 3a**

*Wagon Wheel Creek Restoration and Stormwater Management*





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**Mitigation Type**

- Oak Woodland Mitigation (0.825 acre / 1220 linear feet)
- Sycamore Woodland Mitigation (0.025 acre / 223 linear feet)

**Project Impacts**

- Permanent
- Temporary
- Proposed Contour

**Vegetation Types and Other Areas**

- Coastal Sage Scrub
- Annual Grassland
- Southern Coast Live Oak Riparian Forest
- Disturbed
- Developed

**Mitigation Concept – Maintenance Areas 8 and 9**

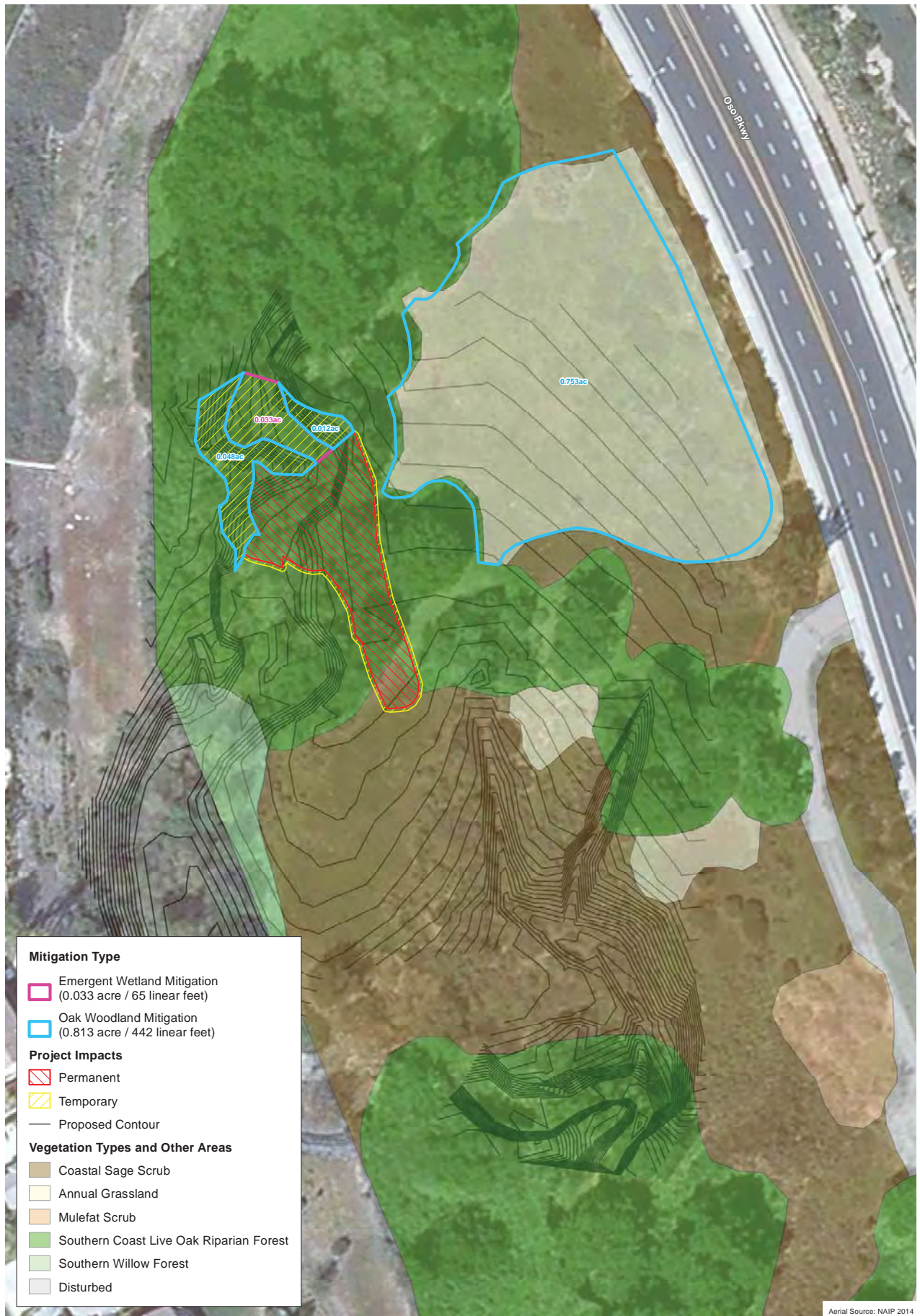
Exhibit 3b

Wagon Wheel Creek Restoration and Stormwater Management



(Rev: 03-22-2016 LEW) R:\Projects\OCF\_OC Parks\010\Graphics\HRMPE3\_Mitigation\_20160317.pdf





**Mitigation Type**

- Emergent Wetland Mitigation  
(0.033 acre / 65 linear feet)
- Oak Woodland Mitigation  
(0.813 acre / 442 linear feet)

**Project Impacts**

- Permanent
- Temporary
- Proposed Contour

**Vegetation Types and Other Areas**

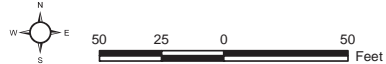
- Coastal Sage Scrub
- Annual Grassland
- Mulefat Scrub
- Southern Coast Live Oak Riparian Forest
- Southern Willow Forest
- Disturbed

Aerial Source: NAIP 2014

**Mitigation Concept – Maintenance Area 11**

**Exhibit 3c**

*Wagon Wheel Creek Restoration and Stormwater Management*



Orange County Parks  
Wagon Wheel Creek Restoration Plan Project  
Certification No. R9-2014-0110

**ATTACHMENT 5**  
**CEQA MITIGATION MONITORING AND REPORTING PROGRAM**

**TABLE 1  
WAGON WHEEL CREEK RESTORATION PLAN  
MITIGATION MONITORING AND REPORTING PROGRAM**

TIMING	MEASURE	RESPONSIBLE FOR MONITORING	COMPLETION
<b>SECTION 5.1 – AESTHETICS</b>			
<i>No applicable Standard Conditions, Project Design Features, or Mitigation Measures are identified.</i>			
<b>SECTION 5.2 – AGRICULTURAL RESOURCES</b>			
<i>No applicable Standard Conditions, Project Design Features, or Mitigation Measures are identified.</i>			
<b>SECTION 5.3 – AIR QUALITY</b>			
<i>No applicable Standard Conditions, Project Design Features, or Mitigation Measures are identified.</i>			
<b>SECTION 5.4 – BIOLOGICAL RESOURCES</b>			
<p>Prior to approval of the project Plans and Specifications by the Board of Supervisors</p>	<p><b>PDF 4-1</b>  <b>Restoration Plan.</b> A Restoration Plan shall be prepared by a qualified Restoration Biologist to ensure that restoration activities follow current technical standards and guidelines. Restoration plantings shall consist of species native to Wagon Wheel Creek with plants/seeds from local sources (i.e., within 15 miles of Wagon Wheel Creek). Elements of the plans shall include, but shall not be limited to, the following:</p> <ul style="list-style-type: none"> <li>• Responsibilities of key parties to the restoration effort (i.e., OC Parks, Biological Monitor, Landscape Contractor, and Arborist);</li> <li>• Consideration of specific plant ecological requirements (e.g., soil type);</li> <li>• Site preparation, including consideration of soil requirements (e.g., hydrology, compaction), for the various plants;</li> <li>• Plant materials (e.g., origin, container size);</li> <li>• Mycorrhizal inoculum specified for all container plants that depend on this symbiotic association;</li> <li>• Planting arrangements and species density;</li> <li>• Irrigation requirements;</li> <li>• Maintenance and monitoring;</li> <li>• Performance standards; and</li> <li>• Performance documentation.</li> </ul> <p>Restoration activities shall be initiated concurrently, or immediately following, construction of each project improvement; restoration will be expected to be achieved no later than one year after installation of the project improvement. The restoration areas shall be maintained and monitored for no less than five years to facilitate the successful establishment of quality riparian habitat. Compliance with the performance standards listed in the Restoration Plan shall be used when evaluating overall restoration success.</p>	<p>Orange County Public Works Director or his designee; Manager, Strategic Land Planning Division</p>	



**WAGON WHEEL CREEK RESTORATION PLAN  
MITIGATION MONITORING AND REPORTING PROGRAM (Continued)**

TIMING	MEASURE	RESPONSIBLE FOR MONITORING	COMPLETION
<p>Prior to construction of the project improvements</p>	<p><b>PDF 4-1</b>  <b>Minimizing Vegetation Disturbance.</b> Access for construction and maintenance of the improvements shall use existing trails to the extent feasible. Future maintenance activities shall occur via the access route for original construction rather than creating a new impact point, unless the new access would further minimize impacts on vegetation. Impacts to native vegetation, especially trees, shall be avoided to the extent feasible during construction and maintenance. Any native vegetation that is disturbed during construction or maintenance of the improvements shall be restored as described in the Restoration Plan (i.e., PDF 4-1).                      Native vegetation shall be marked as "Environmentally Sensitive Areas (ESAs)" in construction plans and specifications. Prior to construction of the project improvements, the limits of construction shall be flagged using orange snowfencing, silt fencing, or lathe/flagging or rope and signs shall be posted indicating adjacent areas are ESAs. A Biological Monitor shall confirm that the limits of disturbance have been marked in the field prior to construction/maintenance and shall be present during vegetation removal to ensure that impacts are limited to the extent practicable.                      When access to an improvement area requires encroachment into vegetation, the vegetation shall be driven over or pruned/trimmed where feasible rather than graded/removed in order to keep root structures intact. Where ground disturbance or grading is necessary, the extent of ground disturbance/grading shall be the minimum required to allow equipment access to construct the improvement. All equipment and materials staging shall occur in within the identified temporary/permanent impact footprint.</p>	<p>Orange County Public Works Director or his designee; Manager, Strategic Land Planning Division</p>	
<p>Prior to approval of the project Plans and Specifications by the Board of Supervisors</p>	<p><b>MM 4-1:</b>  <b>Nesting Birds/Raptors.</b> Within South Orange County, birds generally nest from February 15 to September 15, while raptors generally nest from February 1 to June 30. Prior to approval of the project Plans and Specifications by the Board of Supervisors, the Orange County Public Works Director or his designee, in consultation with the Manager, Strategic Land Planning Division, shall confirm that the Plans and Specifications stipulate that vegetation removal for construction and maintenance of improvements shall be scheduled during the non-breeding season (i.e., September 16 to January 31) to the extent feasible in order to avoid impacts on nesting birds and raptors. If vegetation clearing for construction or maintenance must be conducted during the breeding season, a pre-construction survey shall be conducted by a qualified Biologist for nesting birds and/or raptors within three days prior to disturbance to confirm the absence of active nests within the work area. If no active nests are found, vegetation removal can proceed.                      If the Biologist finds an active nest within or adjacent to the construction area and determines that the nest may be impacted, the Biologist shall identify an appropriate buffer zone around the nest depending on the sensitivity of the species; the location</p>	<p>Orange County Public Works Director or his designee; Manager, Strategic Land Planning Division</p>	

**WAGON WHEEL CREEK RESTORATION PLAN  
MITIGATION MONITORING AND REPORTING PROGRAM (Continued)**

TIMING	MEASURE	RESPONSIBLE FOR MONITORING	COMPLETION
<p>Prior to approval of the project Plans and Specifications by the Board of Supervisors</p>	<p>of the nest; the existing level of human activity from park uses; and the nature of the construction/maintenance activity. Generally, buffer zones for raptor nests shall be 250 to 500 feet while nesting birds shall be 50 to 100 feet, unless otherwise determined by a qualified Biologist based on the criteria described above. The active site and its buffer zone shall be protected until nesting activity has ended to ensure compliance with the MBTA and the <i>California Fish and Game Code</i>.</p> <p><b>MM 4-2:</b>  <b>Roosting Bats.</b> Bats in Southern Orange County typically breed from March 1 to August 31. Prior to approval of the project Plans and Specifications by the Board of Supervisors, the Orange County Public Works Director or his designee, in consultation with the Manager, Strategic Land Planning Division, shall confirm that the Plans and Specifications stipulate that vegetation removal for construction and maintenance of improvements shall be scheduled during the non-breeding season (i.e., September 1 to February 28) to the extent feasible in order to avoid impacts on maternal bat roosts. If vegetation clearing for construction or maintenance must be conducted during the breeding season, a pre-construction passive acoustical survey shall be conducted by a qualified Biologist within 14 days prior to disturbance to confirm the absence of active maternal roosts within the work area. If no active maternal roosts are found, vegetation removal can proceed.</p> <p>If the Biologist finds an active maternal roost within or adjacent to the construction area and determines that the roost may be impacted, the Biologist shall identify an appropriate buffer zone around the roost depending on the sensitivity of the species; the location of the roost; the existing level of human activity from park uses, and the nature of the construction/maintenance activity. Generally, buffer zones for roost nests shall be 50 to 100 feet, unless otherwise determined by a qualified Biologist based on the criteria described above. The maternal roost site and its buffer zone shall be protected until the young are able to fly, as determined by a qualified Biologist.</p>	<p>Orange County Public Works Director or his designee; Manager, Strategic Land Planning Division</p>	
<p>Prior to approval of the project Plans and Specifications by the Board of Supervisors</p>	<p><b>MM 4-3</b>  <b>Regulatory Permitting.</b> Prior to approval of the project Plans and Specifications by the Board of Supervisors, the Orange County Public Works Director or his designee, in consultation with the Manager, Strategic Land Planning Division, shall confirm that the Plans and Specifications stipulate that permits/agreements/certifications from the U.S. Army Corps of Engineers (USACE), the California Department of Fish and Wildlife (CDFW), and the Regional Water Quality Control Board (RWQCB) shall be obtained by OC Parks for impacts on areas within these agencies' jurisdictions prior to any impacts on jurisdictional areas. OC Parks shall be obligated to implement/comply with the measures required by the resource agencies regarding impacts on their respective jurisdictions.</p>	<p>Orange County Public Works Director or his designee; Manager, Strategic Land Planning Division</p>	

**WAGON WHEEL CREEK RESTORATION PLAN  
MITIGATION MONITORING AND REPORTING PROGRAM (Continued)**

TIMING	MEASURE	RESPONSIBLE FOR MONITORING	COMPLETION
<p>Prior to approval of the project Plans and Specifications by the Board of Supervisors</p>	<p><b>MM 4-4</b> <b>Tree Avoidance.</b> Prior to approval of the project Plans and Specifications by the Board of Supervisors, the Orange County Public Works Director or his designee, in consultation with the Manager, Strategic Land Planning Division, shall confirm that the Plans and Specifications stipulate that coast live oak and western sycamore trees (i.e., their trunk, canopy, and dripline) shall be avoided to the extent feasible during construction and maintenance of project improvements. Where pruning/trimming/removal is necessary for construction improvements or for equipment access, a Certified Arborist shall be present during the pruning/trimming or removal of oak and sycamore trees. Prior to pruning/trimming/removal, the Arborist shall verify that no alternate access is available. The Arborist shall direct any pruning/trimming of oak/sycamore trees in order to minimize the impact on the long-term health of the trees. Any oak/sycamore branches removed shall be used within restoration areas along Wagon Wheel Creek.</p>	<p>Orange County Public Works Director or his designee; Manager, Strategic Land Planning Division</p>	
<p>Prior to approval of the project Plans and Specifications by the Board of Supervisors</p>	<p><b>MM 4-5</b> <b>Construction Vehicle Washing.</b> Prior to approval of the project Plans and Specifications by the Board of Supervisors, the Orange County Public Works Director or his designee, in consultation with the Manager, Strategic Land Planning Division, shall confirm that the Plans and Specifications stipulate that a construction vehicle washing station shall be established at the entrance to Riley Wilderness Park. Construction equipment shall be washed prior to entering the park to ensure that no invasive seeds shall be brought into the park within mud on vehicle tires. Runoff from the washing station shall be filtered/contained so that no seeds runoff into the drainage for the park.</p>	<p>Orange County Public Works Director or his designee; Manager, Strategic Land Planning Division</p>	
<p>Prior to approval of the project Plans and Specifications by the Board of Supervisors</p>	<p><b>MM 4-6</b> <b>Best Management Practices.</b> Prior to approval of the project Plans and Specifications by the Board of Supervisors, the Orange County Public Works Director or his designee, in consultation with the Manager, Strategic Land Planning Division, shall confirm that the Plans and Specifications stipulate that construction and maintenance crews shall use Best Management Practices (BMPs), including applicable measures required through the National Pollutant Discharge Elimination System (NPDES) requirements, to ensure that the quantity and quality of runoff from improvement areas into open space areas are not adversely affected.</p>	<p>Orange County Public Works Director or his designee; Manager, Strategic Land Planning Division</p>	
<p><b>SECTION 5.5 – CULTURAL/SCIENTIFIC RESOURCES</b></p>			
<p>Prior to approval of the project Plans and Specifications by the Board of Supervisors</p>	<p><b>MM 5-1</b> Prior to approval of the project Plans and Specifications by the Board of Supervisors, the Orange County Public Works Director or his designee, in consultation with the Manager, Strategic Land Planning Division, would confirm that the Plans and Specifications stipulate that a qualified professional Archaeologist shall monitor the initial phase of ground disturbing activities of the project and an Archaeological Monitor and Native American Monitor shall monitor those areas deemed sensitive for the presence of human remains. If buried cultural resources are discovered during ground-disturbing activities, work shall stop in the area where artifacts are observed and within a buffer area where additional artifacts related to</p>	<p>Orange County Public Works Director or his designee; Manager, Strategic Land Planning Division</p>	



**WAGON WHEEL CREEK RESTORATION PLAN  
MITIGATION MONITORING AND REPORTING PROGRAM (Continued)**

TIMING	MEASURE	RESPONSIBLE FOR MONITORING	COMPLETION
<p>Prior to approval of the project Plans and Specifications by the Board of Supervisors</p>	<p>the discovery may remain buried (but no more than 50 feet) until the monitoring Archaeologist can assess the significance of the find and, if necessary, develop appropriate treatment measures. Treatment measures typically include development of avoidance strategies or mitigation of impacts through data recovery programs such as excavation or detailed documentation. If during cultural resources monitoring the qualified archaeologist determines that the sediments being excavated are previously disturbed or unlikely to contain significant cultural materials, the qualified archaeologist can specify that monitoring be reduced or eliminated.</p> <p>Prior to approval of the project Plans and Specifications by the Board of Supervisors, the Orange County Public Works Director or his designee, in consultation with the Manager, Strategic Land Planning Division, would confirm that the Plans and Specifications stipulate that a qualified Paleontological Monitor would be contacted in the event that potential paleontological resources are discovered. Treatment measures may include monitoring by a qualified Paleontologist during construction-related ground-disturbing activities if paleontological resources are discovered. The qualified Paleontological Monitor would retain the option to reduce monitoring if, in his or her professional opinion, the sediments being monitored were previously disturbed. Monitoring may also be reduced if potentially fossiliferous units are not present or, if deposits are present, they are determined by qualified paleontological personnel to have a low potential to contain fossil resources. The Monitor shall be equipped to salvage fossils and samples of sediments as they are unearthed to avoid construction delays and shall have the authority to temporarily halt or divert equipment to allow removal of abundant or large specimens. Recovered specimens shall be prepared to a point of identification and permanent preservation, including washing of sediments to recover small invertebrates and vertebrates. Specimens shall be curated into a professional, accredited museum repository with permanent retrievable storage. A report of findings, with an appended itemized inventory of specimens, shall be prepared and shall signify completion of the program to mitigate impacts on paleontological resources.</p>	<p>Orange County Public Works Director or his designee; Manager, Strategic Land Planning Division</p>	
<p>During excavation activities</p>	<p><b>MM 5-2</b></p> <p>If human remains are encountered during excavation activities, all work shall halt and the County Coroner shall be notified (<i>California Public Resources Code</i> §5097.98). The Coroner shall determine whether the remains are of forensic interest. If the Coroner, with the aid of the County-approved Archaeologist, determines that the remains are prehistoric, s/he shall contact the Native American Heritage Commission (NAHC). The NAHC shall be responsible for designating the most likely descendant (MLD), who shall be responsible for the ultimate disposition of the remains, as required by Section 7050.5 of the <i>California Health and Safety Code</i>. The MLD shall make his/her recommendation within 48 hours of being granted access to the site. The MLD's recommendation shall be followed if feasible.</p> <p><b>MM 5-3</b></p>	<p>Orange County Public Works Director or his designee; Manager, Strategic Land Planning Division</p>	

**WAGON WHEEL CREEK RESTORATION PLAN  
MITIGATION MONITORING AND REPORTING PROGRAM (Continued)**

TIMING	MEASURE	RESPONSIBLE FOR MONITORING	COMPLETION
<b>SECTION 5.6 – GEOLOGY AND SOILS</b>			
Prior to design and installation of sheet piles	<p><b>PDF 6-1</b>      <b>Liquefaction.</b> The potential effects of liquefaction shall be considered in the design and installation of sheet pile structures.</p> <p>and may include scientific removal and non-destructive analysis of the human remains and any items associated with Native American burials (<i>California Health and Safety Code §7050.5</i>). If the landowner rejects the MLD's recommendations, the landowner shall rebury the remains with appropriate dignity on the property in a location that would not be subject to further subsurface disturbance (<i>California Public Resources Code §5097.98</i>).</p>	Chief Engineer, OC Parks, or his designee; Director of OC Planning	
<b>SECTION 5.7 – GREENHOUSE GAS EMISSIONS</b>			
<i>No applicable Standard Conditions, Project Design Features, or Mitigation Measures are identified.</i>			
<b>SECTION 5.8 – HAZARDS AND HAZARDOUS MATERIALS</b>			
Prior to approval of the project Plans and Specifications by the Board of Supervisors	<p><b>MM 8-1</b>      Prior to approval of project plans and specifications, the Chief Engineer, OC Parks, or his designee, in consultation with the Director, OC Planning, shall confirm that a pre-grade/pre-construction conference has been conducted to inform the Project Contractor(s) and their staff of the high fire hazard conditions that exist in and around the project site and measures that they must implement to minimize the potential for construction-related fires.</p>	Chief Engineer, OC Parks, or his designee; Director of OC Planning	
<b>SECTION 5.9 – HYDROLOGY AND WATER QUALITY</b>			
Prior to the issuance of a grading permit	<p><b>SC 9-1</b>      Prior to the issuance of a grading permit, the applicant shall submit an Erosion and Sediment Control Plan (ESCP) in a manner meeting approval of the Manager, Permit Services, to demonstrate compliance with the County's National Pollutant Discharge Elimination System (NPDES) Implementation Program and State water quality regulations for grading and construction activities. The ESCP shall identify how all construction materials, wastes, grading or demolition debris, and stockpiles of soil, aggregates, soil amendments, etc. shall be properly covered, stored, and secured to prevent transport into local drainages or coastal waters by wind, rain, tracking, tidal erosion, or dispersion. The ESCP shall also describe how the applicant would ensure that all BMPs would be maintained during construction of any future public right-of-ways. The ESCP shall be updated as needed to address the changing circumstances of the project site. A copy of the current ESCP shall be kept at the project site and be available for County review on request.</p>	Manager, Permit Services	



**WAGON WHEEL CREEK RESTORATION PLAN  
MITIGATION MONITORING AND REPORTING PROGRAM (Continued)**

TIMING	MEASURE	RESPONSIBLE FOR MONITORING	COMPLETION
Prior to the issuance of a grading permit	<p><b>SC 9-2</b></p> <p>Prior to the issuance of a grading permit, the applicant shall demonstrate compliance with California's General Permit for Stormwater Discharges Associated with Construction Activity by providing a copy of the Notice of Intent (NOI) submitted to the State Water Resources Control Board and a copy of the subsequent notification of the issuance of a Waste Discharge Identification (WDID) Number; or other proof of filing in a manner meeting the satisfaction of the Manager, Permit Intake. Projects subject to this requirement shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP). A copy of the current SWPPP shall be kept at the project site and shall be available for County review on request.</p>	Manager, Permit Intake	
Prior to the issuance of a grading permits	<p><b>SC 9-3</b></p> <p>Prior to the issuance of a grading permit, the applicant shall submit for review and approval by the Manager, Permit Services, a Water Quality Management Plan (WQMP) specifically identifying Best Management Practices (BMPs) that would be used on site to control predictable pollutant runoff. The applicant shall utilize the Orange County Drainage Area Management Plan (DAMP), the Model WQMP, and Technical Guidance Manual for reference, and the County's WQMP template for submittal. This WQMP shall include the following:</p> <ul style="list-style-type: none"> <li>• Detailed site and project descriptions.</li> <li>• Potential stormwater pollutants.</li> <li>• Post-development drainage characteristics.</li> <li>• Low Impact Development (LID) BMP selection and analysis.</li> <li>• Structural and non-structural source-control BMPs.</li> <li>• A site design and drainage plan (BMP Exhibit)</li> <li>• Geographic Information System (GIS) coordinates for all LID and treatment-control BMPs.</li> <li>• An Operation and Maintenance (O&amp;M) Plan that (1) describes the long-term operation and maintenance requirements for BMPs identified in the BMP Exhibit; (2) identifies the entity that would be responsible for long-term operation and maintenance of the referenced BMPs; and (3) describes the mechanism for funding the long-term operation and maintenance of the referenced BMPs.</li> </ul> <p>The BMP Exhibit from the approved WQMP shall be included as a sheet in all plan sets submitted for plan check, and all BMPs shall be depicted on these plans. Grading plans must be consistent with the approved BMP exhibit.</p>	Manger, Permit Services	

**WAGON WHEEL CREEK RESTORATION PLAN  
MITIGATION MONITORING AND REPORTING PROGRAM (Continued)**

TIMING	MEASURE	RESPONSIBLE FOR MONITORING	COMPLETION
<b>SECTION 5.10 – LAND USE AND PLANNING</b>			
<i>No applicable Standard Conditions, Project Design Features, or Mitigation Measures are identified.</i>			
<b>SECTION 5.11 – MINERAL RESOURCES</b>			
<i>No applicable Standard Conditions, Project Design Features, or Mitigation Measures are identified.</i>			
<b>SECTION 5.12 – NOISE</b>			
Prior to the issuance of any grading permits	<p><b>SC 12-1</b> Prior to the issuance of any grading permits, the project proponent shall produce evidence acceptable to the Manager, Building Permits Services, that:</p> <ol style="list-style-type: none"> <li>(1) All construction vehicles or equipment, fixed or mobile, operated within 1,000 feet of a dwelling shall be equipped with properly operating and maintained mufflers.</li> <li>(2) All operations shall comply with Orange County Codified Ordinance Division 6 (Noise Control), as modified for this project. In accordance with the Orange County Noise Ordinance, construction activities associated with the Project would be limited to the hours of 7:00 AM to 8:00 PM, Monday through Saturday, with no construction on Sundays or federal holidays.</li> <li>(3) Stockpiling and/or vehicle staging areas shall be located as far as practicable from dwellings.</li> </ol> <p>Notations in the above format, appropriately numbered and included with other notations on the front sheet of the project's permitted grading plans, will be considered as adequate evidence of compliance with this condition.</p>	Manager, Building Permit Services	
<b>SECTION 5.13 – POPULATION AND HOUSING</b>			
<i>No applicable Standard Conditions, Project Design Features, or Mitigation Measures are identified.</i>			
<b>SECTION 5.14 – PUBLIC SERVICES</b>			
<i>No applicable Standard Conditions, Project Design Features, or Mitigation Measures are identified.</i>			
<b>SECTION 5.15 – RECREATION</b>			
<i>No applicable Standard Conditions, Project Design Features, or Mitigation Measures are identified.</i>			
<b>SECTION 5.16 – TRANSPORTATION/TRAFFIC</b>			
<i>No applicable Standard Conditions, Project Design Features, or Mitigation Measures are identified.</i>			
<b>SECTION 5.17 – UTILITIES AND SERVICE SYSTEMS</b>			
<i>No applicable Standard Conditions, Project Design Features, or Mitigation Measures are identified.</i>			