

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

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

**PROJECT: Santa Margarita River Conjunctive Use Permit
Certification Number R9-2016-0217
WDID: 9000003118**

Reg. Meas. ID: 410314 Place ID: 830008 Party ID: 511527 Person ID: 553407
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**APPLICANT: Marine Corps Base Camp Pendleton
MCBCP Building 22165
Camp Pendleton, CA 92055**

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 November 10, 2016 was submitted by Marine Corps Base Camp Pendleton (MCBCP) (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 Santa Margarita River Conjunctive Use Permit Project (Project). The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) deemed the application to be complete on May 10, 2017. 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-2014-0047).

The Project is located within Camp Pendleton, Naval Weapons Station Seal Beach Detachment Fallbrook, San Diego County, California. The Project center reading is located at latitude 33.34119 and longitude -117.33189. On May 12, 2017, 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 construct a weir and diversion structure that consists of (1) an inflatable Obermeyer weir with four operable sections where one section will function as a fish ladder; (2) a low-flow sluiceway; (3) fish screens; (4) screen bypass sluiceway; (5) a

sand trap; (6) diversion headgates; and (7) concrete lining of O'Neill ditch. The operation of the weir and diversion will be automated using monitoring sensors.

The Proposed Action will resolve the water rights issues between MCBCP and Fallbrook Public Utility District (FPUD) and satisfy the Court's order to find a "physical solution" to the ongoing dispute in *United States v. Fallbrook Public Utility District, et al.* The project will involve the conjunctive use of surface water and groundwater within the Lower Santa Margarita River (SMR) Basin. "Conjunctive use" will consist of adaptive management of surface water and groundwater resources and will be achieved through the diversion of SMR surface waters to groundwater recharge ponds and the active use of groundwater aquifers for water storage. The Project has been designed to meet the long-term water demands of MCBCP and the FPUD, reduce dependence on imported water, maintain watershed resources, and improve water supply reliability by managing the yield of the Lower SMR Basin. Currently, an existing sheet pile weir diverts water into O'Neill ditch to perform the functions described above. O'Neil Ditch will be lined with concrete to allow for quicker delivery of water from the SMR into either the Lake O'Neill reservoir or the recharge ponds.

The proposed action will rehabilitate existing facilities, and build new facilities within the Lower SMR Basin to capture surface runoff during high streamflow events. The inflatable weir diversion structure will extend up to one foot higher than the existing diversion structure. The existing headgate on O'Neill ditch will be replaced. The captured surface water will be used to recharge groundwater through existing groundwater recharge ponds, and stored in groundwater basins during wet years in order to augment water supplies during dry years, thereby reducing reliance on imported water. The Project includes the construction and operation of a new bi-directional pipeline extending from MCBCP to FPUD facilities via Detachment Fallbrook.

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 0.59 acre (320 linear feet) of wetland waters of the United States and/or State and 2.33 acre (5,188 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 2.92 acre of jurisdictional waters will be achieved through the establishment of 2.92 acres (450 linear feet) of wetland waters of the United States and/or State, enhancement of 225 acres of riparian waters of the United States and/or State, contribution of approximately \$7 million dollars to the conservation of the Open Space Management Zone (OSMZ) within the Santa Margarita River

watershed, and a contribution of \$2,316,000.37 to a fund/in-lieu fee for the purpose of conserving and managing at-risk properties that contain significant arroyo toad breeding populations and their associated breeding habitat. 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 Naval Weapons Station Seal Beach Detachment Upper Reach Fallbrook Creek located in the Upper Ysidora hydrologic sub-area (HSA 902.13) at a minimum compensation ratio of 225:1 (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 *Santa Margarita River Conjunctive Use Project Habitat Mitigation and Monitoring Plan* (Mitigation Plan), dated June 2017. 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. R9-2016-0217 (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.
- 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

- 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 the Santa Margarita River, Fallbrook Creek or their 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 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 dumping, deposition, or discharge of trash, rubbish, unset cement or asphalt, concrete, grout, damaged concrete or asphalt, concrete or asphalt spoils, wash water, organic or earthen material, steel, sawdust or other construction debris waste from Project activities directly into waters of the United States and or State, or adjacent to such waters in any manner which may permit its being transported into the waters, is prohibited.
- G. **Downstream Erosion.** Discharges of concentrated flow during construction or after Project completion must not cause downstream erosion or damage to properties or stream habitat.

- H. **Construction Equipment.** All equipment must be washed prior to transport to the Project site and must be free of sediment, debris, and foreign matter. All equipment used in direct contact with surface water shall be steam cleaned prior to use. All equipment using gas, oil, hydraulic fluid, or other petroleum products shall be inspected for leaks prior to use and shall be monitored for leakage. Stationary equipment (e.g., motors, pumps, generator, etc.) shall be positioned over drip pans or other types of containment.
- I. **Process Water.** Water containing mud, silt, or other pollutants from equipment washing or other activities, must not be discharged to waters of the United States and/or State or placed in locations that may be subjected to storm water runoff flows. Pollutants discharged to areas within a stream diversion must be removed at the end of each work day or sooner if rain is predicted.
- J. **Surface Water Diversion.** All surface waters, including ponded waters, must be diverted away from areas of active grading, construction, excavation, vegetation removal, and/or any other activity which may result in a discharge to the receiving water. Diversion activities must not result in the degradation of beneficial uses or exceedance of the receiving water quality objectives. Any temporary dam or other artificial obstruction constructed must only be built from materials such as clean gravel which will cause little or no siltation. Normal flows must be restored to the affected stream immediately upon completion of work at that location.
- K. **Re-vegetation and Stabilization.** All areas that have 14 or more days of inactivity must be stabilized within 14 days of the last activity. The Applicant shall implement and maintain BMPs to prevent erosion of the rough graded areas. After completion of grading, all areas must be re-vegetated with native species appropriate for the area. The re-vegetation palette must not contain any plants listed on the California Invasive Plant Council Invasive Plant Inventory, which can be accessed at <http://www.cal-ipc.org/ip/inventory/>.
- 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 Santa Margarita River, Fallbrook Creek or their 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. R9-20015-0013 NPDES No. CAG919003, *General Waste Discharge Requirements For Groundwater Extraction Waste Discharges To Surface Waters Within The San Diego Region*.

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 Santa Margarita River, Fallbrook Creek or their tributaries within the Santa Margarita 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)
Permanent Impacts						
Stream Channel	2.33	5,188	2.33 Re-establishment ¹ 125 Enhancement ² Preservation ^{3,4}	54.65:1	130 Establishment	0.025:1
Wetland	0.59	320	0.59 Re-establishment ¹ 100 Enhancement ² Preservation ^{3,4}	170:1	320 Establishment	1:1
Temporary Impacts³						
Streambed	0.848	1563	NA	NA	NA	NA
Wetland	2.238	NA	NA	NA	NA	NA

1. Wetland re-establishment at Naval Weapons Station Seal Beach Detachment Upper Reach Fallbrook Creek.
2. MCBCP will deduct 225 acres of accrued credits from their Riparian Biological Opinion (BO) Habitat Ledger (In accordance with the USFWS Programmatic Activities and Conservation Plans in Riparian and Estuarine/Beach Ecosystems on Marine Corps Base, Camp Pendleton Biological Opinion 1-6-95-F-02 (Programmatic Riparian BO). MCBCP has conducted exotic vegetation removal within the riparian areas on Base. By establishing a baseline level of habitat required by the Riparian BO coupled with exotic vegetation removal over the last two decades, the Base has accumulated a surplus of credits, documented in a Riparian BO ledger. Debits are reported to the USFWS on an annual basis.
3. MCBCP will contribute approximately \$7 million dollars to the conservation of the Open Space Management Zone (OSMZ) within the Santa Margarita River watershed located just above the base boundary on Fallbrook, to off-set impacts to riparian species and their habitat. The OSMZ is 1,394 acres and contains an estimated 37.81 acres of open water habitat suitable for arroyo toad breeding and 393.3 acres of riparian habitats suitable for arroyo toad foraging and sheltering.
4. MCBCP will contribute \$2,316,000.37 to a fund/in-lieu fee for the purpose of conserving and managing at-risk properties that contain significant arroyo toad breeding populations and their associated breeding habitat.

This site may additionally support least Bells vireo, southwestern willow flycatcher, and gnatcatcher breeding and dispersal habitat.

5. 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 VI.F, page 18) 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. 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.

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)¹ 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. Benthic Macroinvertebrate Community Analysis. The Applicant shall conduct bioassessment monitoring, as described in this section, to assess the success of mitigation areas and the impact of construction activities, whenever applicable, using benthic macroinvertebrate community data. Bioassessment shall include: 1) the collection and reporting of benthic macroinvertebrate data; and 2) the collection and reporting of physical habitat data. Bioassessment using benthic macroinvertebrates shall be conducted in perennial wadeable streams during the index period. Perennial streams shall be defined as streams with surface water flow present during the appropriate index period². Wadeable streams shall be defined as streams that can be safely waded in order to be sampled for benthic invertebrates during the appropriate index period. If the appropriate sampling period lies outside the index period, please contact the San Diego Water Board.

1. **Field Methods.** Bioassessment monitoring must be performed using the SWAMP field methods specified in *Standard Operating Procedures for Collecting Benthic Macroinvertebrate Samples and Associated Physical and Chemical Data for Ambient Bioassessments in California*³ (SOP, Ode 2007) or any updates of these methods. The Applicant shall conduct, concurrently with all required benthic macroinvertebrate collections, the "Full" suite of physical habitat characterization measurements as specified in Table 1 of the SOP.

¹ 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/>

² The appropriate index period can be found electronically at the following location: http://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/constpermits/cgp_biomap.pdf.

³ The SOP can be found electronically at the following location: http://www.waterboards.ca.gov/water_issues/programs/swamp/docs/phab_sopr6.pdf

2. **Laboratory Methods.** Benthic macroinvertebrates shall be identified using the SWAMP laboratory methods specified in *Standard Operating Procedures for Laboratory Processing and Identification of Benthic Macroinvertebrates in California*⁴ (Laboratory SOP, Woodard et al. 2012) or any updates of these methods. Standard Taxonomic Effort (STE) Level II of the Southwestern Association of Freshwater Invertebrate Taxonomists (SAFIT) is required. Quality control samples are required for 10% of the samples each year and Quality Assurance samples must be analyzed by the Aquatic Bioassessment Laboratory of the California Department of Fish and Wildlife.
3. **Data Analysis.** Analysis of benthic macroinvertebrate data shall be conducted using scoring tools including but not limited to the *Southern California Index of Biotic Integrity*⁵ (Ode et. al. 2005) and the *California Stream Condition Index*⁶ (CSCI, Mazor et. al., currently in review) when the CSCI scoring tool is finalized.
4. **Data Storage.** Benthic macroinvertebrate data and physical habitat data shall be submitted to the California Environmental Data Exchange Network⁷ (CEDEN).
5. **Monitoring Sites.** All monitoring sites shall be approved by staff at the San Diego Water Board before sampling is initiated and must meet the following conditions:
 - a. **Monitoring Sites Before/After Construction.** At a minimum, bioassessment monitoring for impacts during construction must be performed during the established index period for the Santa Margarita watershed, at two sites (assessment stations) in the Santa Margarita River before Project initiation and then 6 months after construction has ended. The first assessment must be located upstream of the construction site, and the second assessment station must be located downstream of the construction site.
6. **Monitoring Reports.** An evaluation, interpretation and tabulation of the benthic macroinvertebrate community analysis must be submitted prior to **March 1** with the respective Annual Project Monitoring Report.

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

⁴ The Laboratory SOP can be found electronically at the following location:

http://www.waterboards.ca.gov/water_issues/programs/swamp/docs/bmi_lab_sop_final.pdf

⁵ The *Southern California Index of Biotic Integrity* can be found electronically at the following location:

http://www.waterboards.ca.gov/water_issues/programs/swamp/docs/reports/coastalstreams.pdf

⁶ The *California Stream Condition Index* can be found electronically at the following location:

http://www.waterboards.ca.gov/plans_policies/docs/biological_objective/2_scoring%20tool.pdf

⁷ The California Environmental Data Exchange Network can be found electronically at the following location:

<http://www.ceden.org/>

- H. **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.
- I. **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 1st through December 31st 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;
 - 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. 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. The results of the Benthic Macroinvertebrate Community Analysis monitoring required under section VI.F of this Certification;

- k. As-built drawings of the compensatory mitigation project site(s), no bigger than 11"X17"; and
 - l. A survey report documenting boundaries of the compensatory mitigation site(s).
- J. **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/StreamPhotoDocSOP.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) and benthic macroinvertebrate community assessment data collected throughout the term of Project construction in accordance with section VI.E and VI.F of this Certification.
- K. **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.
- L. **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. 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. R9-2016-0217:830008: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. R9-2016-0217: 830008:dbradford.

M. 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.

N. 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 San Diego, in accordance with California Health and Safety Code section 5411.5 and the California Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State toxic disaster contingency plan adopted pursuant to Government Code Title 2, Division 1, Chapter 7, Article 3.7 (commencing with section 8574.17), and immediately notify the State Water Board or the San Diego Water Board of the discharge. This provision does not require reporting of any discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of section 13271 of the Water Code unless the Applicant is in violation of a Basin Plan prohibition.
- C. **Oil or Petroleum Product Discharge.** Except 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. **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 Fallbrook Public Utility District 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 September 26, 2016 for the Final Environmental Impact Report (FEIR) titled Final Environmental Impact Statement/Environmental Impact Report Santa Margarita River Conjunctive Use Project (State Clearing House Number 2004121068). The Lead Agency has

determined the Project will have a significant effect on the environment and mitigation measures were made a condition of the Project.

- B. The San Diego Water Board is a Responsible Agency under CEQA (Public Resources Code section 21069; CEQA Guidelines section 15381). The San Diego Water Board has considered the Lead Agency's FEIR and finds that the Project as proposed will have a significant effect on resources within the San Diego Water Board's purview.
- C. The San Diego Water Board has required mitigation measures as a condition of this Certification to avoid or reduce the environmental effects of the Project to resources within the Board's purview to a less than significant level.
- D. The Lead Agency has adopted a mitigation monitoring and reporting program pursuant to Public Resources Code section 21081.6 and CEQA Guidelines section 15097 to ensure that mitigation measures and revisions to the Project identified in the FEIR are implemented. The Mitigation Monitoring and Reporting Program (MMRP) is included and incorporated by reference in Attachment 5 to this Certification. The Applicant shall implement the Lead Agency's MMRP described in the FEIR, as it pertains to resources within the San Diego Water Board's purview. The San Diego Water Board has imposed additional MMRP requirements as specified in 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

X. WATER QUALITY CERTIFICATION

I hereby certify that the proposed discharge from the **Santa Margarita River Conjunctive Use Permit** (Certification No. R9-2016-0217) 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. R9-2016-0217 issued on June 30, 2017.

David T Barber for
David Gibson

DAVID W. GIBSON
Executive Officer
San Diego Water Board

JUNE 30, 2017

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.

Marine Corps Base Camp Pendleton
Santa Margarita River Conjunctive Use Permit
Certification No. R9-2016-0217

ATTACHMENT 2
PROJECT LOCATION MAPS

Figure 1-1 – Regional Location Map

Figure 3.2-2 – Lake O’Neill, O’Neill Ditch, and Recharge Ponds

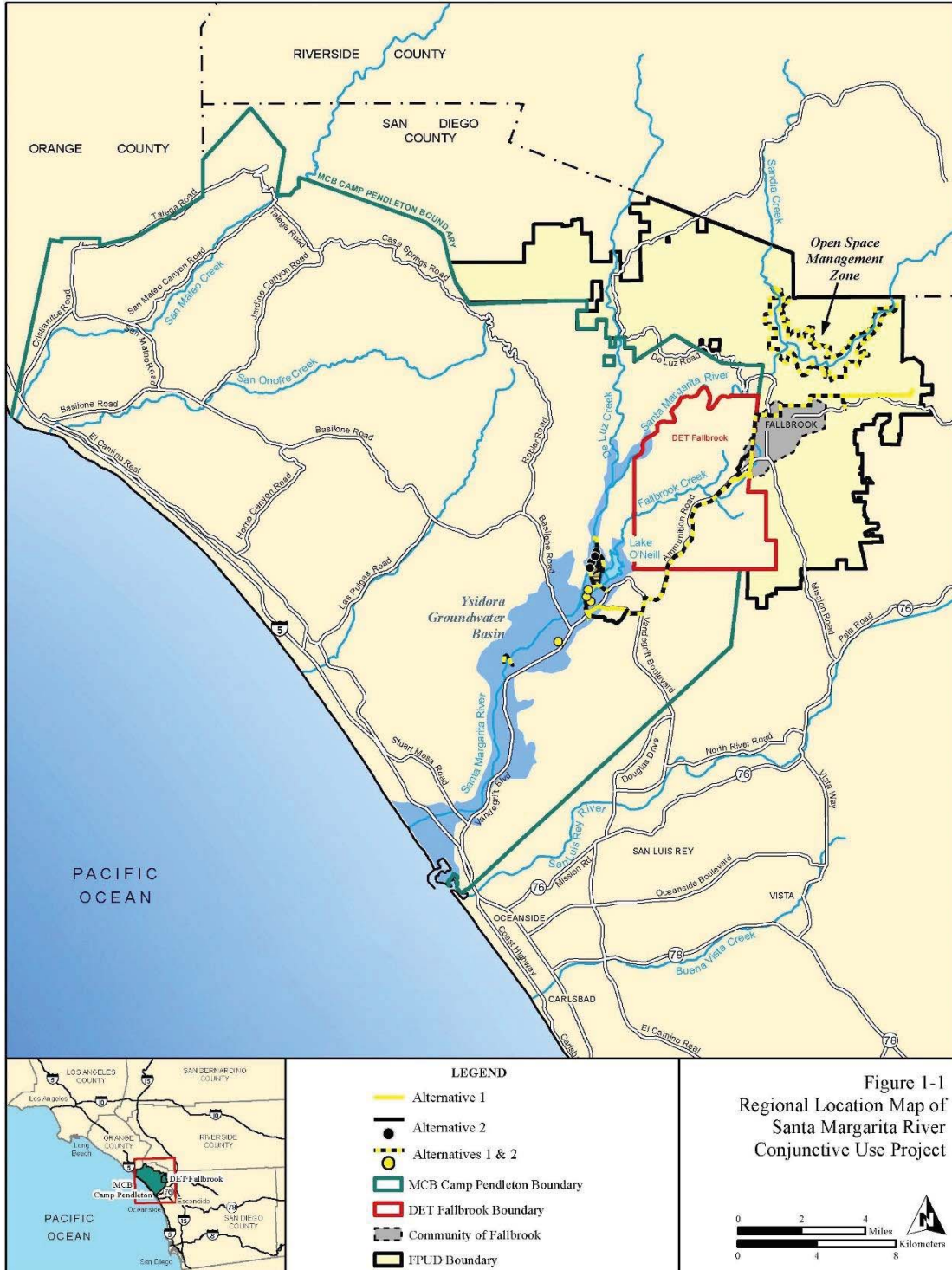


Figure 1-1
 Regional Location Map of
 Santa Margarita River
 Conjunctive Use Project

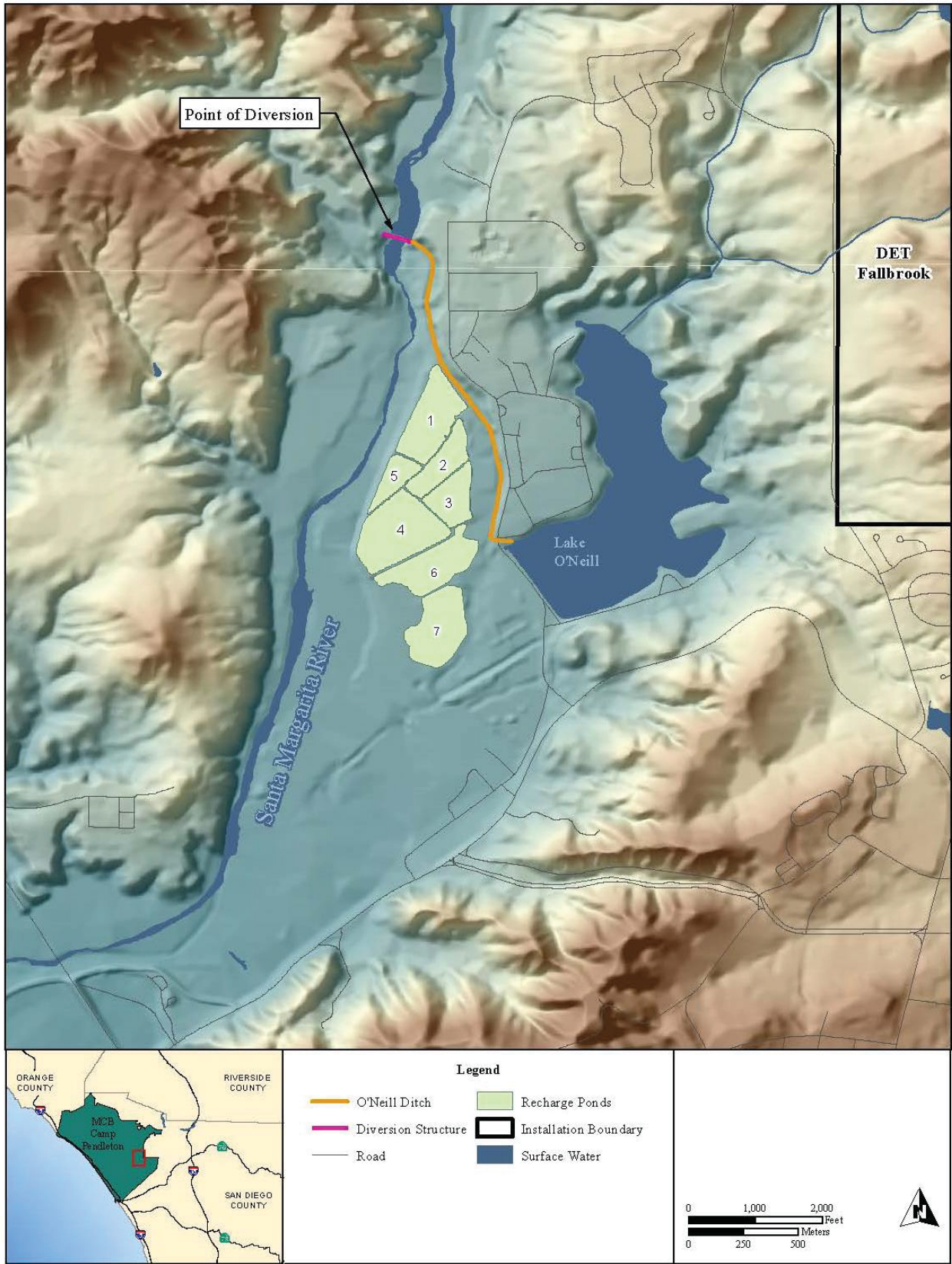


Figure 3.2-2. Lake O'Neill, O'Neill Ditch, and Recharge Ponds

Marine Corps Base Camp Pendleton
Santa Margarita River Conjunctive Use Permit
Certification No. R9-2016-0217

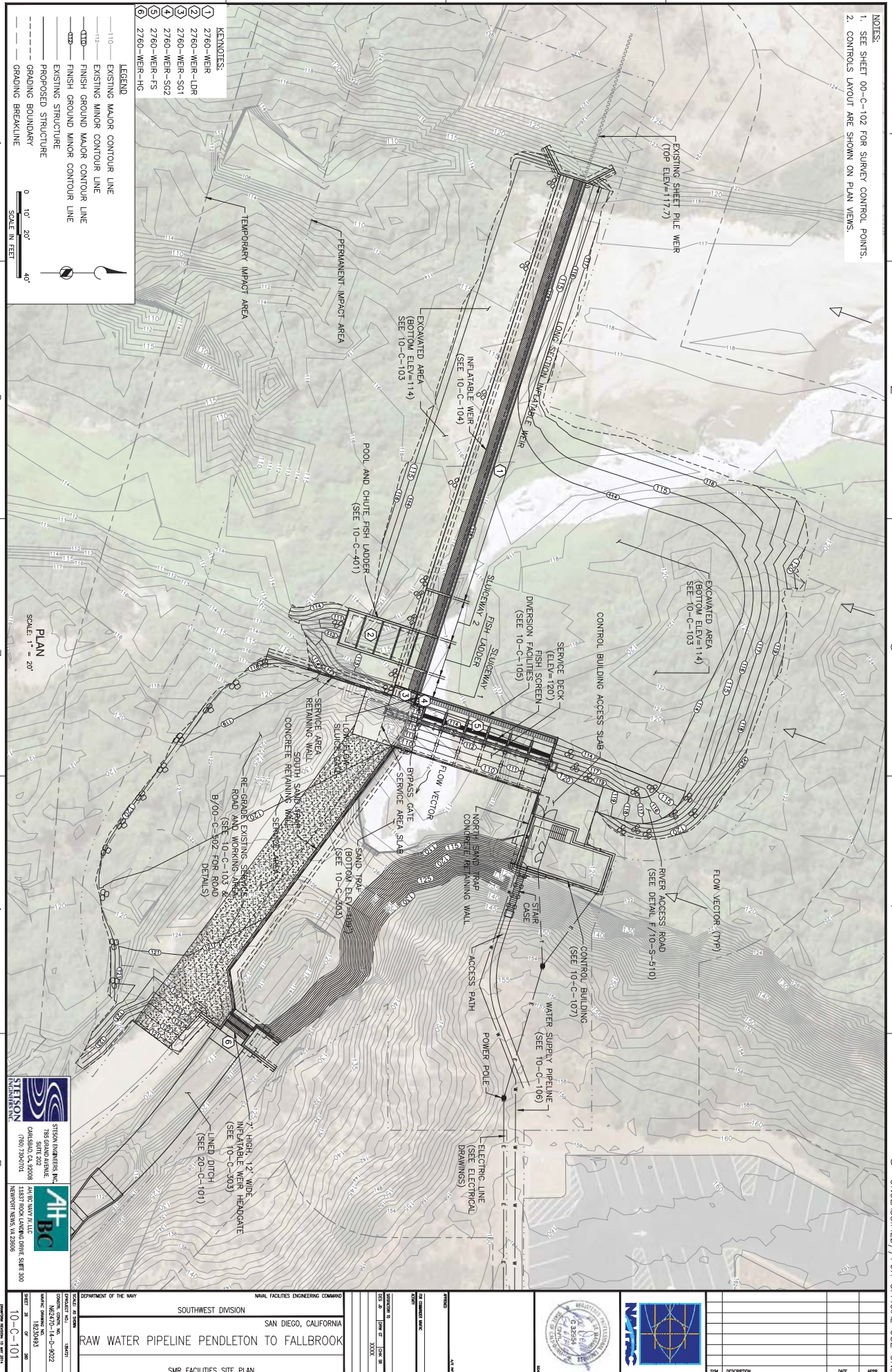
**ATTACHMENT 3
PROJECT SITE PLANS**

Figures 10-C-101, -102, -106; 20-C-101: Raw Water Pipeline Pendleton to Fallbrook

Figure B-1 & Figure 5: Wetland Figure Locations

Figures B-30 – B-38, B-47, B-49, B-50, B-55 - B-58: Wetlands and other Waters of the U.S.

- NOTES:
1. SEE SHEET 00-C-102 FOR SURVEY CONTROL POINTS.
 2. CONTROLS LAYOUT ARE SHOWN ON PLAN VIEWS.



- LEGEND:
- 110 - EXISTING MAJOR CONTOUR LINE
 - 112 - EXISTING MINOR CONTOUR LINE
 - 114 - FINISH GROUND MAJOR CONTOUR LINE
 - 116 - FINISH GROUND MINOR CONTOUR LINE
 - 118 - PROPOSED STRUCTURE
 - 120 - EXISTING STRUCTURE
 - 122 - GRADING BOUNDARY
 - 124 - GRADING BREAKLINE
- SCALE: 1" = 20'

PLAN
 SCALE: 1" = 20'

STEINSON ENGINEERS, INC.
 758 GRAND AVENUE
 CARLSBAD, CA 92008
 (760) 739-9701

AH BC
 11857 ROCK LANDING DRIVE SUITE 300
 ABERNETHY WIS, VA 22086

10-C-101

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND SAN DIEGO, CALIFORNIA RAW WATER PIPELINE PENDLETON TO FALLBROOK SMR FACILITIES SITE PLAN	PROJECT NO.: 10-C-101 DRAWING NO.: 10-C-101-0022 SHEET NO.: 10-C-101-0022 DATE: 05/28/16	DRAWN BY: JOR CHECKED BY: JOR APPROVED BY: JOR
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SYMBOL	DESCRIPTION	DATE	APPR.

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PLAN
 SCALE: 1" = 50'

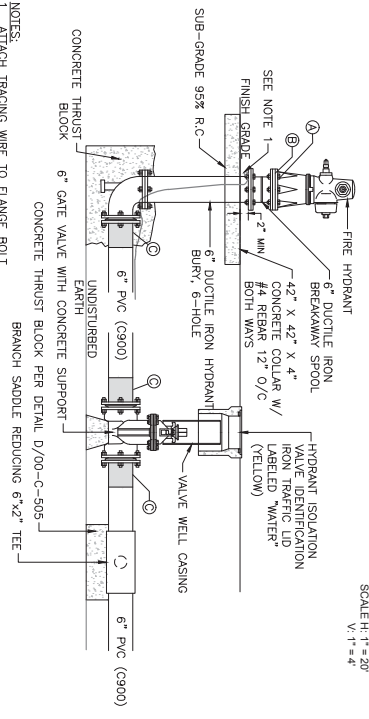
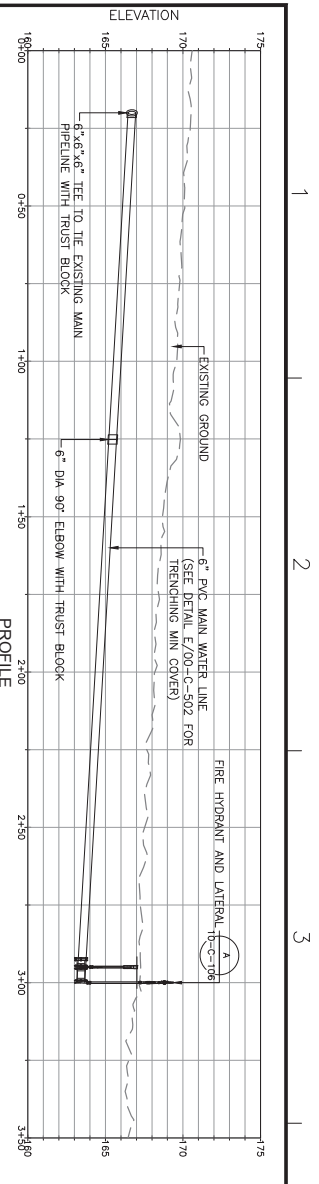
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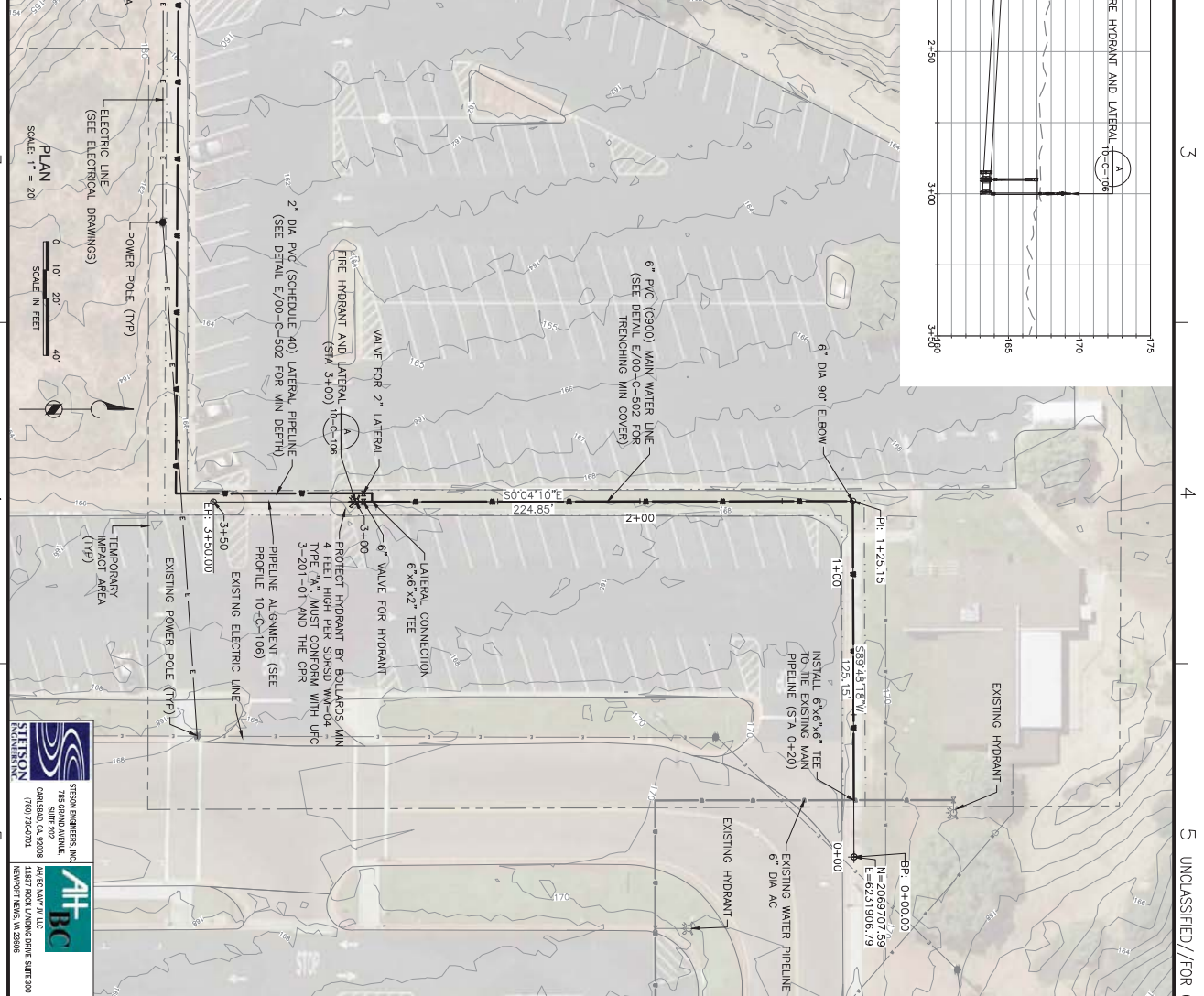
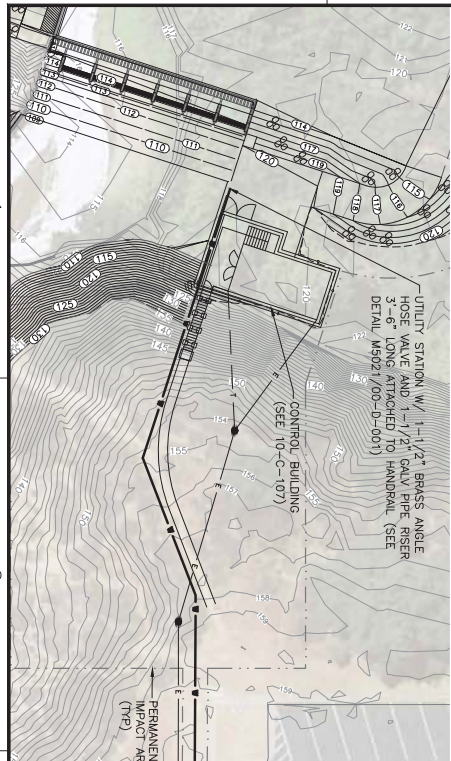
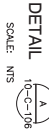
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<p>STINSON ENGINEERS, INC. 7555 GRAND AVENUE CARLSBAD, CA 92008 (760) 739-9700</p>		<p>A/H BC 11857 ROCK LANDING DRIVE, SUITE 300 HANFORD, CA 93230</p>	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND SAN DIEGO, CALIFORNIA RAW WATER PIPELINE PENDLETON TO FALLBROOK SITE ACCESS AND STAGING AREAS			
DRAWN BY: [Name] CHECKED BY: [Name] DATE: 05/27/16	PROJECT NO: 10-C-102 SHEET NO: 001		



- NOTES:
1. ATTACH TRACING WIRE TO FLANGE BOLT.
 2. ALL THRUST BLOCKING TO BE AGAINST UNDISTURBED TRENCH WALLS.
 3. INSTALL THRUSTERS WITH FIBER OPTIC BULKHEAD BUILDING.
 4. USE YELLOW PLASTIC HYDRANT CAPS AND PAINT YELLOW.
 5. HYDRANT FLANGE CONNECTIONS STANDARD 6\"/>

NO.	DESCRIPTION
①	TYPE 316 S.S. HYDRANT BOLT KIT, TYP
②	6\"/>
③	6\"/>

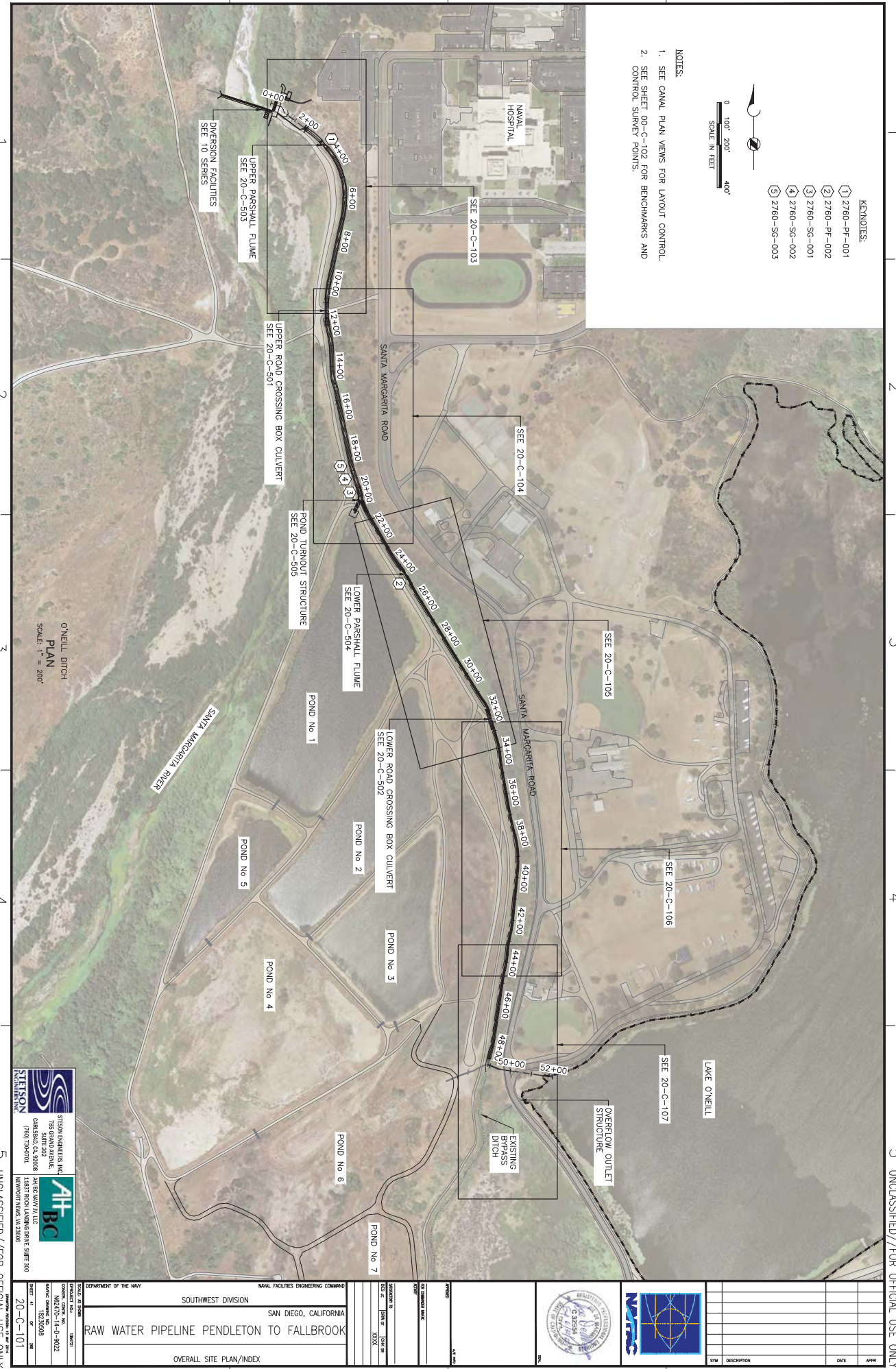


STEINSON ENGINEERS, INC.
 7585 GRAND AVENUE
 CARLSBAD, CA 92008
 (760) 739-0701

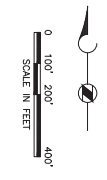
AH BC
 A.H. & B.C. ENGINEERS, LLC
 14857 ROCKY HARBOR DRIVE SUITE 300
 NEWPORT NEWS, VA 23606

<p>DATE: 05/27/16 DRAWN BY: JOR CHECKED BY: JOR SCALE: 1\"/> </p>	<p>DEPARTMENT OF THE WATER SAN DIEGO, CALIFORNIA CIVIL ENGINEERING COMMAND</p>	<p>PROJECT: RAW WATER PIPELINE PENDLETON TO FALLBROOK SHEET: 10-C-106</p>		
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UNCLASSIFIED//FOR OFFICIAL USE ONLY



- NOTES:**
1. SEE CANAL PLAN VIEWS FOR LAYOUT CONTROL.
 2. SEE SHEET 00-C-102 FOR BENCHMARKS AND CONTROL SURVEY POINTS.



- KEYNOTES:**
- ① 2760-PF-001
 - ② 2760-PF-002
 - ③ 2760-SG-001
 - ④ 2760-SG-002
 - ⑤ 2760-SG-003

O'NEILL DITCH
PLAN
SCALE: 1" = 200'

UNCLASSIFIED//FOR OFFICIAL USE ONLY

UNCLASSIFIED//FOR OFFICIAL USE ONLY

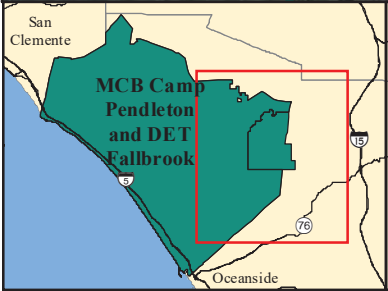
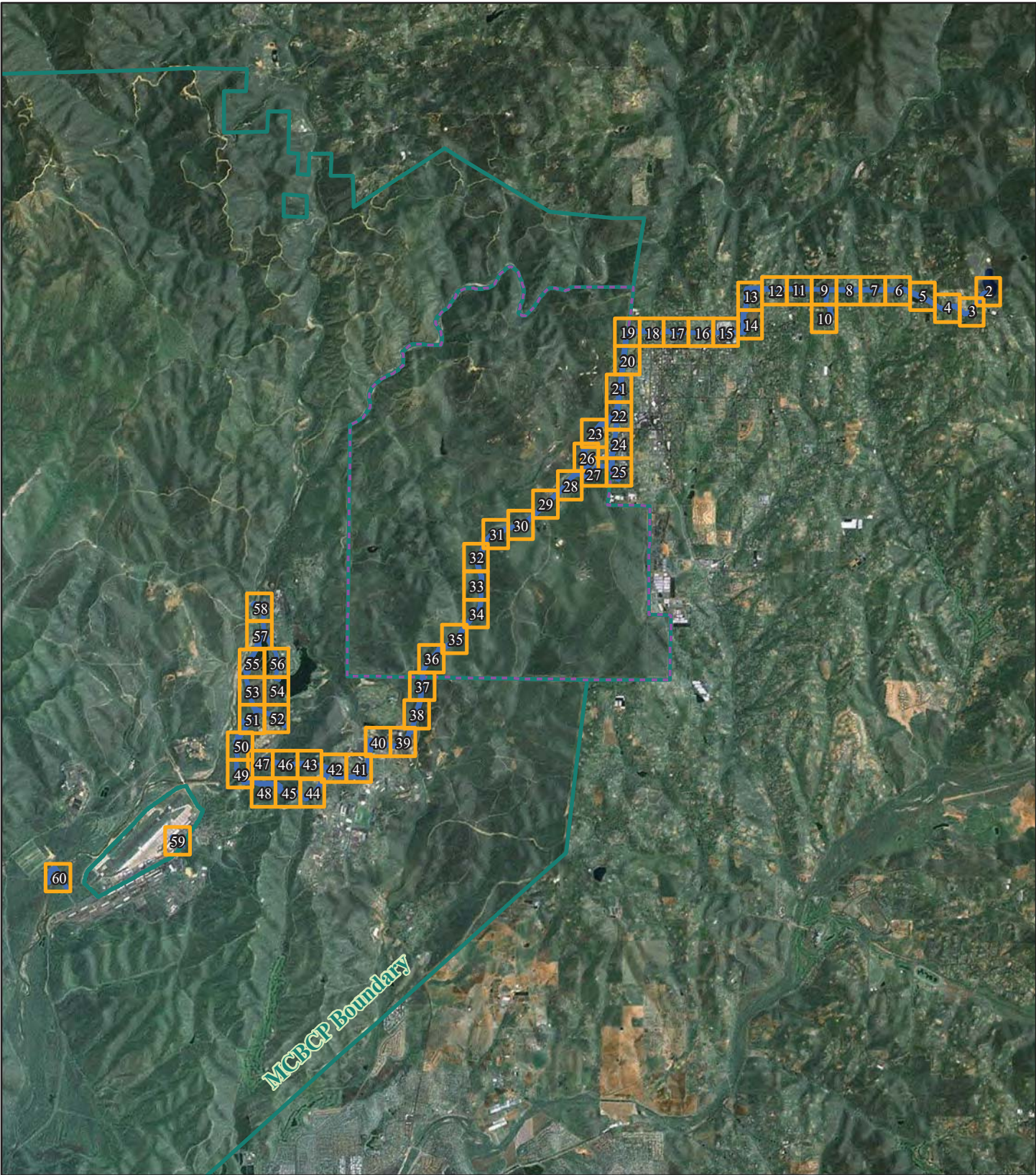
<p>STINSON ENGINEERS, INC. 7555 GRAND AVENUE CARLSBAD, CA 92008 (760) 739-9701</p>	<p>AH BC 11857 ROCK LANDING DRIVE, SUITE 310 AERHART NEWS, VA 22006</p>	CONTRACT NO.: 150973 PROJECT NO.: 150973-01 DRAWING NO.: 20-C-101
		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND SAN DIEGO, CALIFORNIA

PROJECT: RAW WATER PIPELINE PENDLETON TO FALLBROOK SHEET: 20-C-101	DATE: 1/28/2016 DRAWN BY: JOR CHECKED BY: JOR
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APPROVED BY: [Signature] DATE: 5/28/16	DESIGNED BY: [Signature] DATE: 5/28/16
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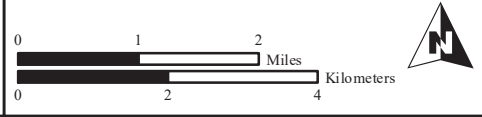


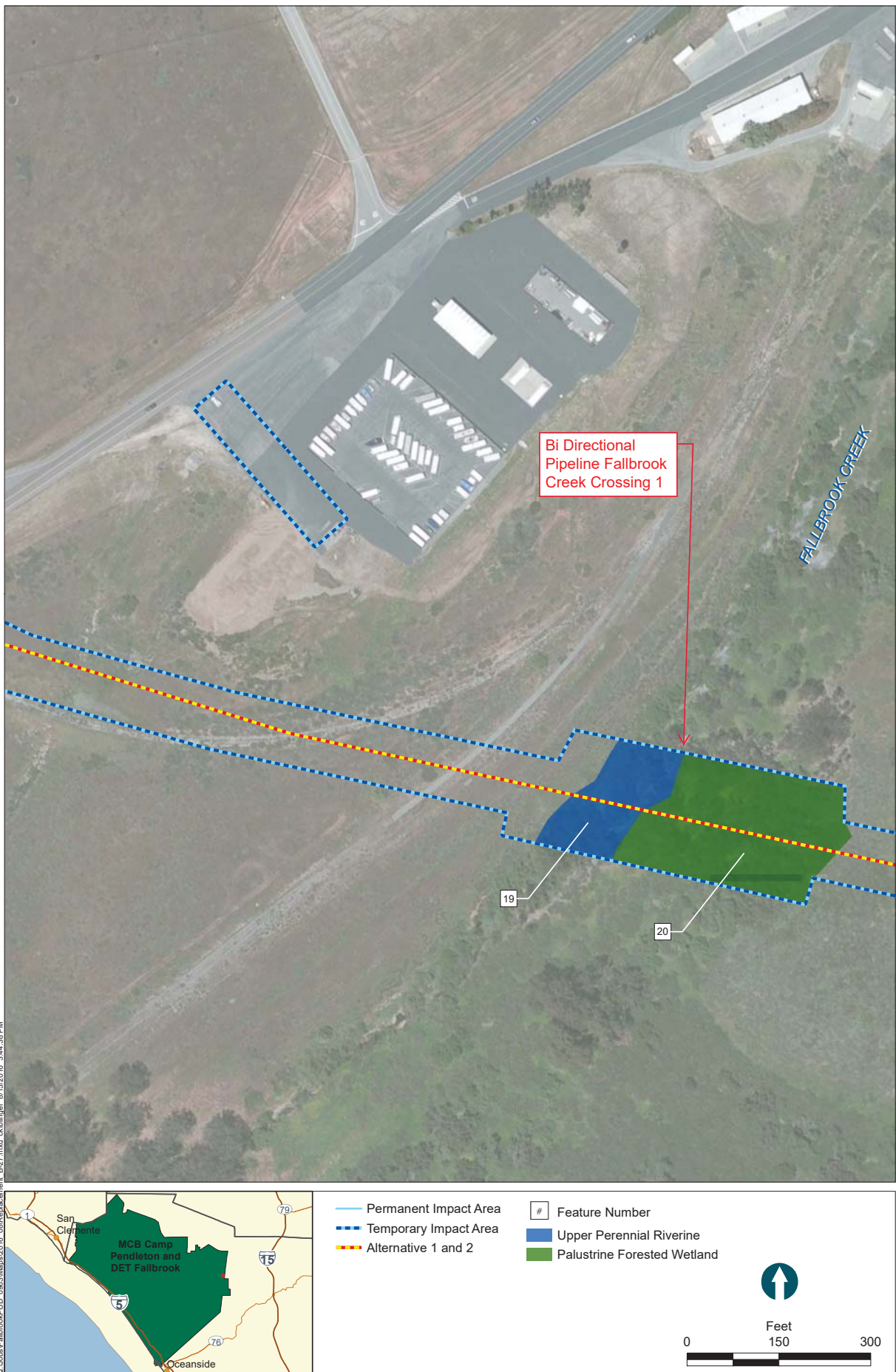
SYD	DESCRIPTION	DATE	APPR



- Legend**
- Project Area
 - DET Fallbrook Boundary
 - MCB Camp Pendleton
 - Appendix B Wetland Figures

Figure B-1
Wetland Figure Locations





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Figure 5
 Replacement Figure B-27
 Jurisdictional Resources Delineation Report Addendum
 Santa Margarita River Conjunctive Use Project

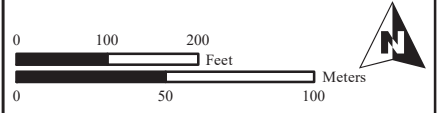


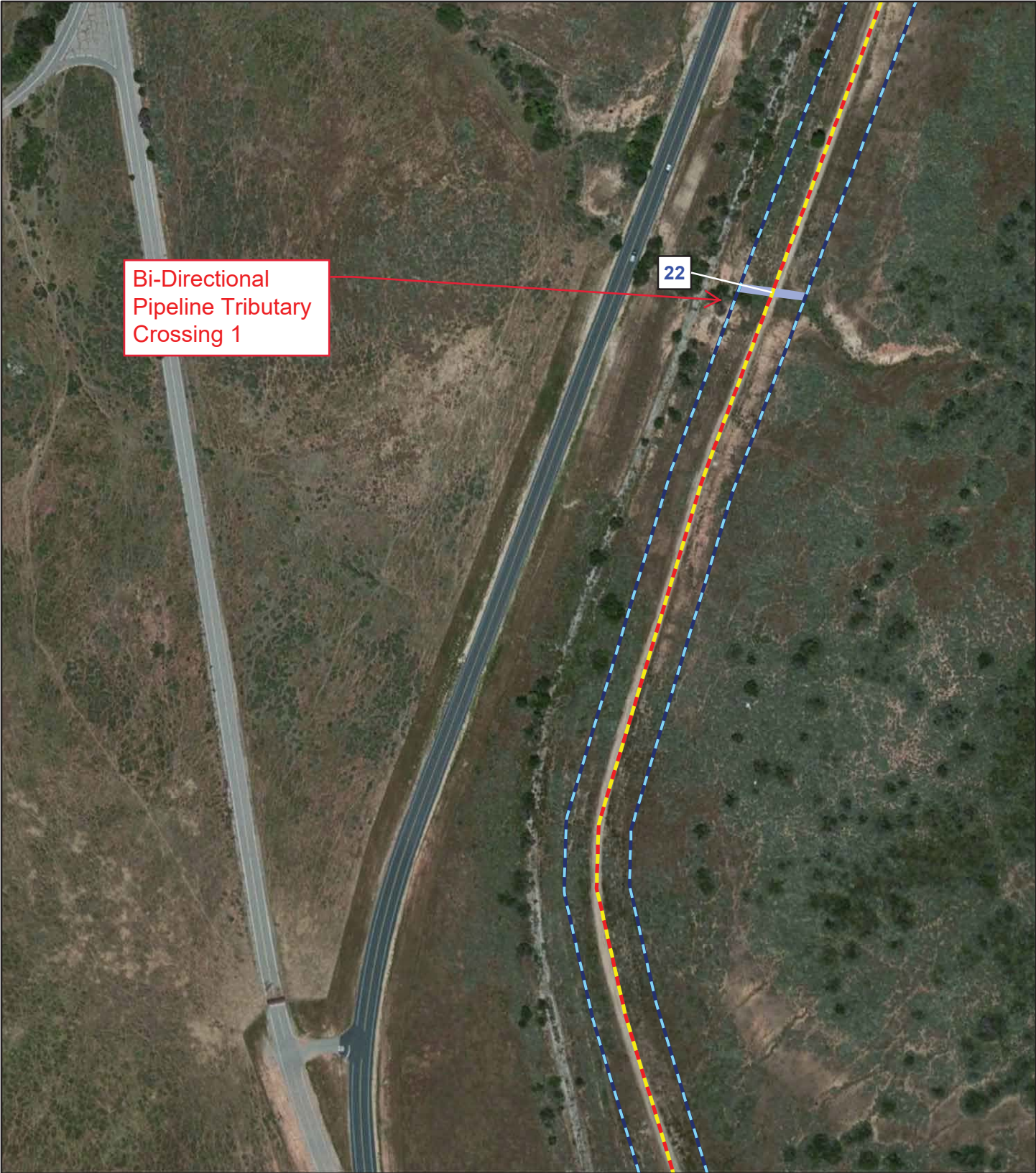
Bi-Directional Pipeline Fallbrook Creek Crossing 2



- Legend**
- Permanent Impact Area
 - Temporary Impact Area
 - Alternatives 1 and 2
 - ▼ Photo Direction and Number
 - # Feature Number
 - Sample Point and Number
 - △ Inside Wetland
 - ▲ Outside Wetland
 - Aquatic Features
 - Upper Perennial Riverine

Figure B-30
Wetlands and other Waters of the U.S.
for Alternatives 1 and 2





Bi-Directional Pipeline Tributary Crossing 1

22

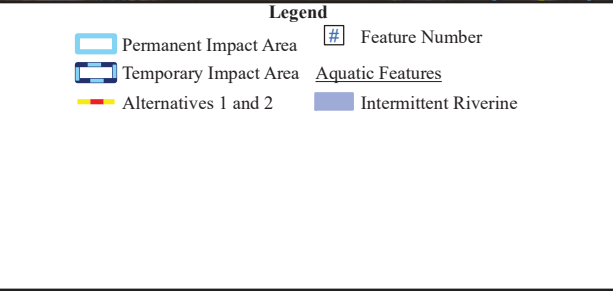
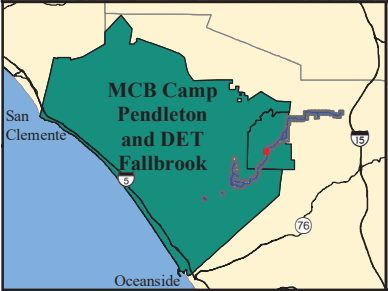
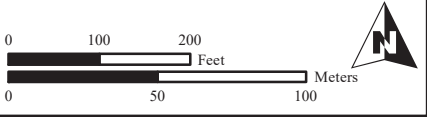
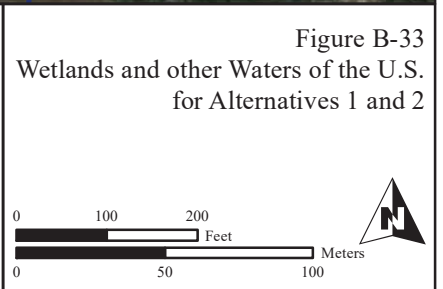
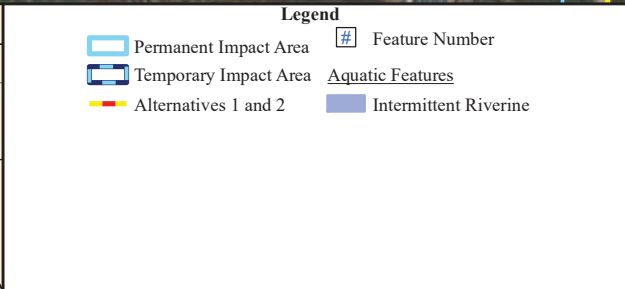
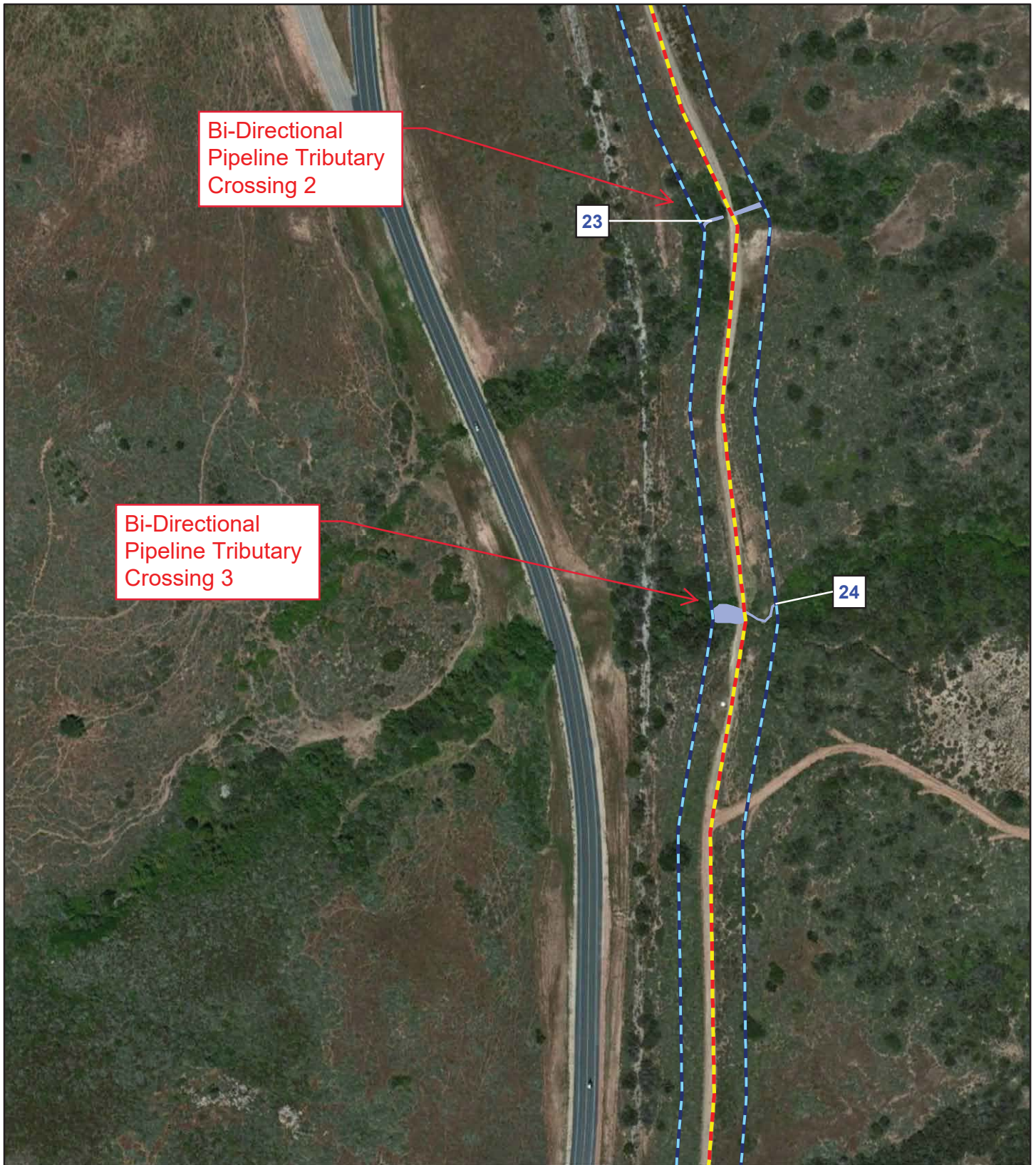
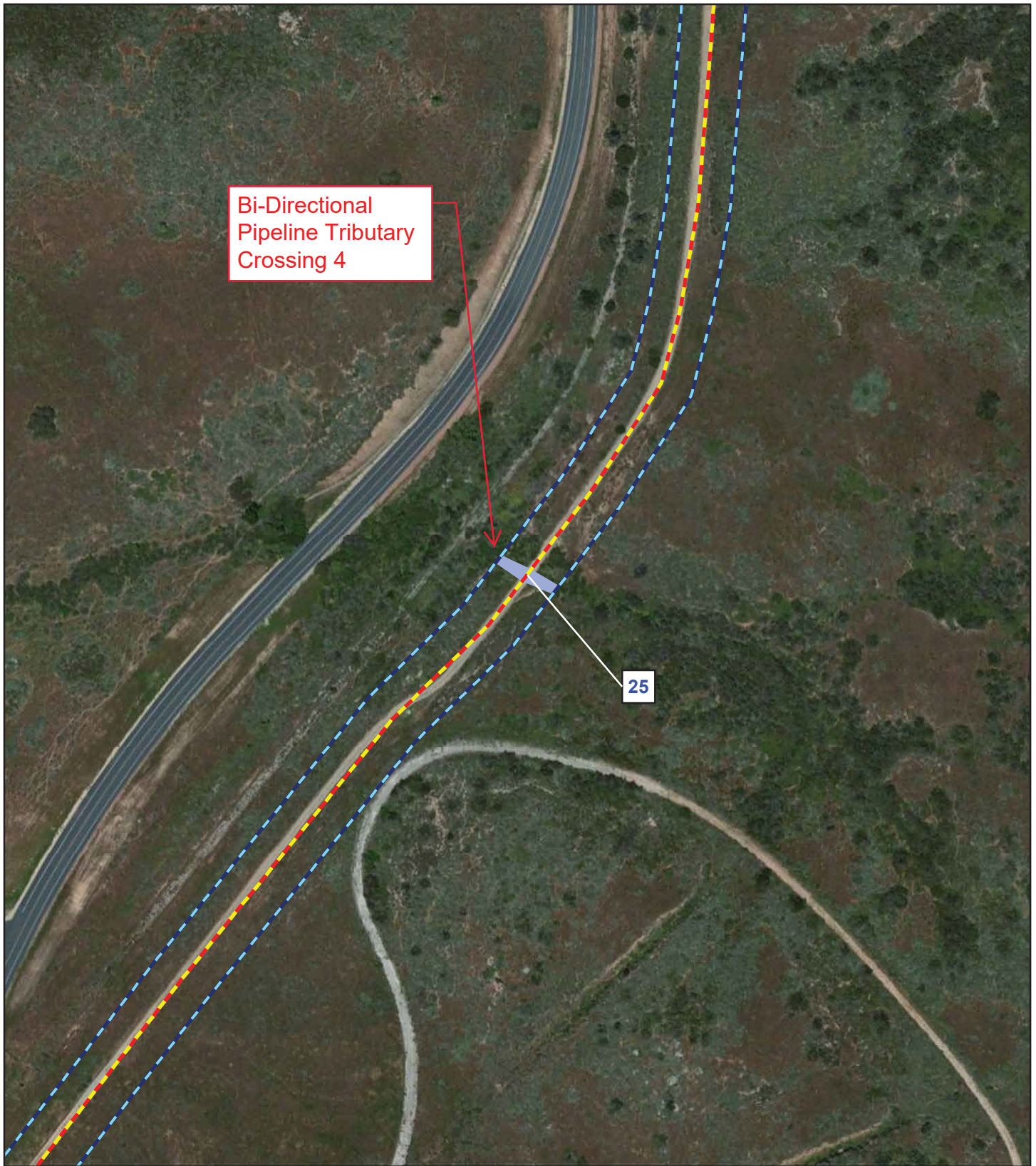


Figure B-32
Wetlands and other Waters of the U.S.
for Alternatives 1 and 2

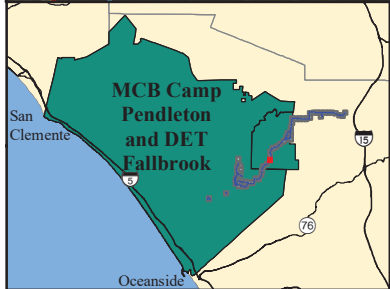






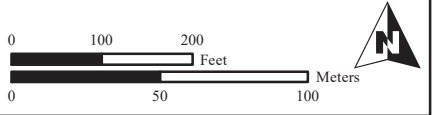
Bi-Directional Pipeline Tributary Crossing 4

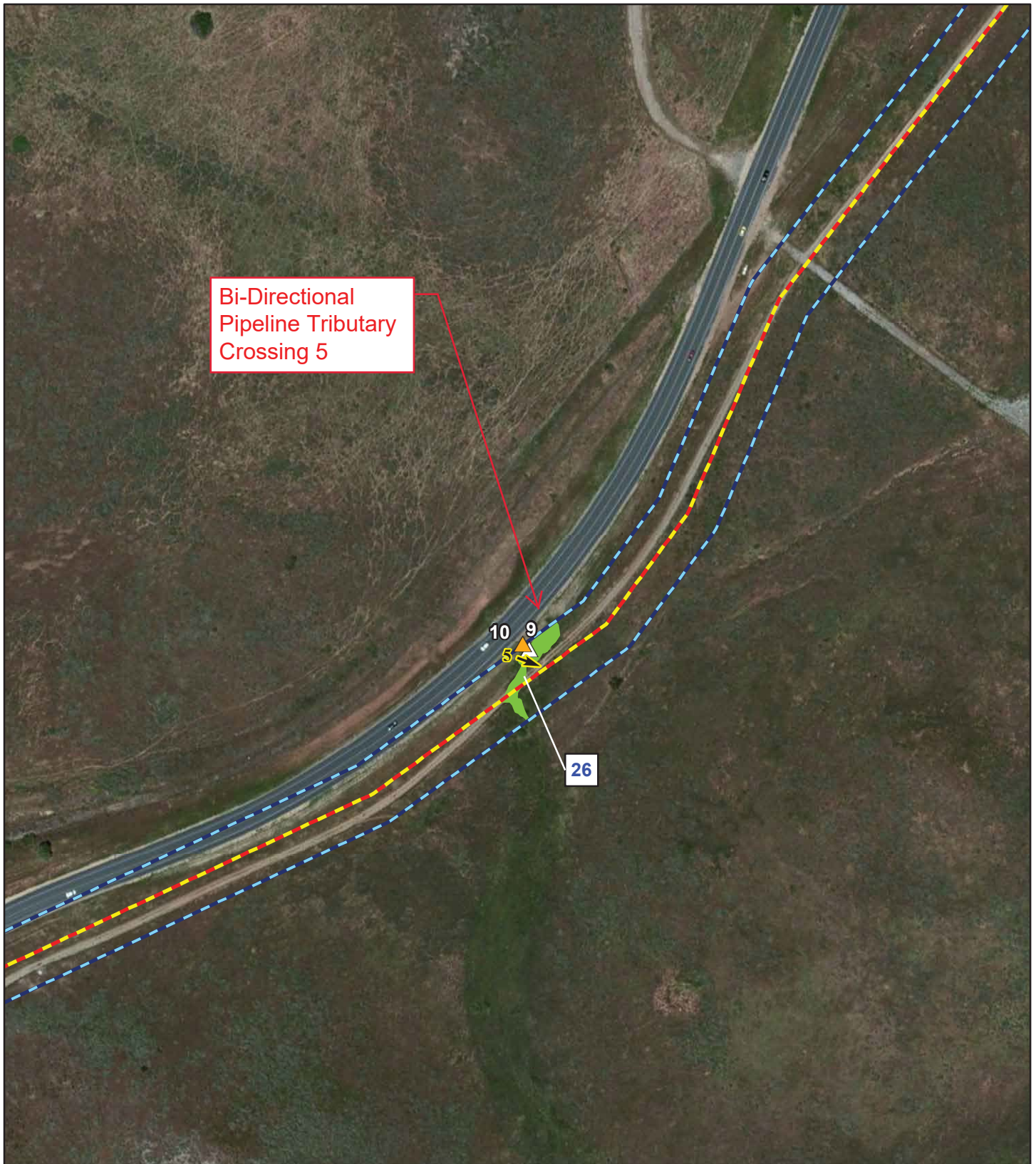
25



- Legend**
- Permanent Impact Area
 - Temporary Impact Area
 - Alternatives 1 and 2
 - Feature Number
 - Aquatic Features
 - Intermittent Riverine

Figure B-34
Wetlands and other Waters of the U.S.
for Alternatives 1 and 2



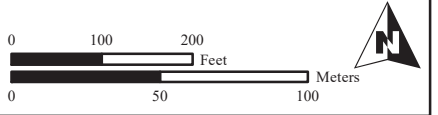


Bi-Directional Pipeline Tributary Crossing 5



- Legend**
- Permanent Impact Area
 - Temporary Impact Area
 - Alternatives 1 and 2
 - Photo Direction and Number
 - # Feature Number
 - Sample Point and Number
 - △ Inside Wetland
 - ▲ Outside Wetland
 - Aquatic Features
 - Palustrine Emergent Wetland

Figure B-35
Wetlands and other Waters of the U.S.
for Alternatives 1 and 2





Bi-Directional Pipeline Tributary Crossing 6

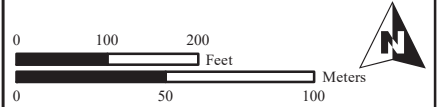
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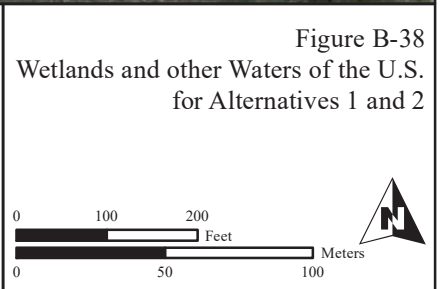
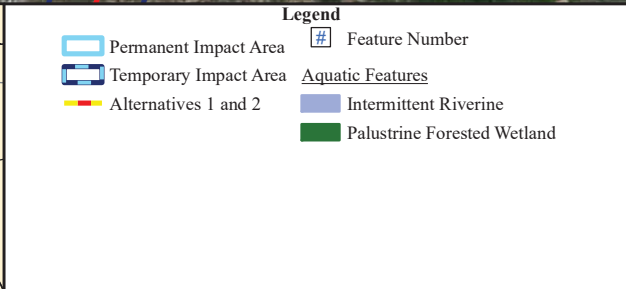
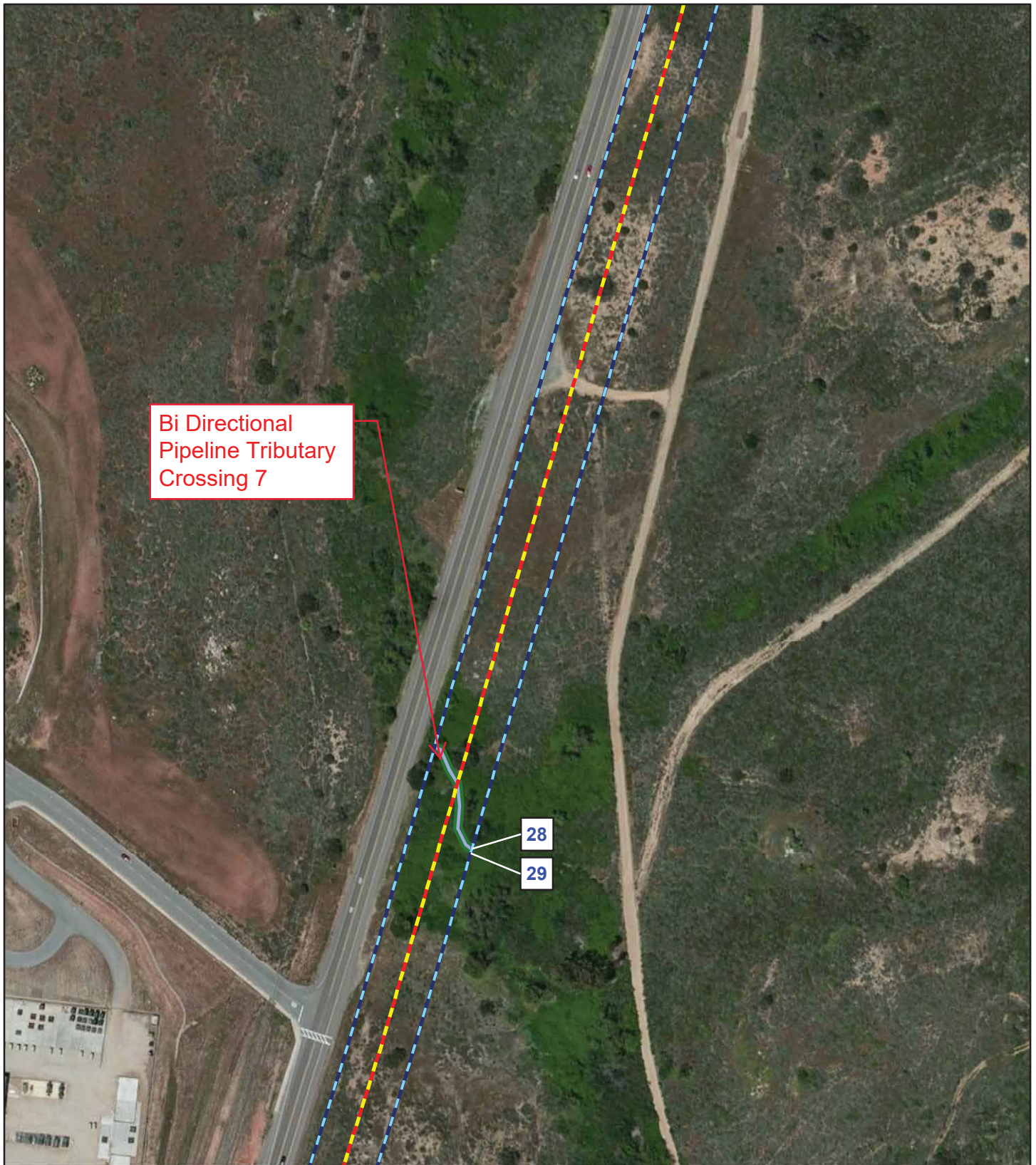
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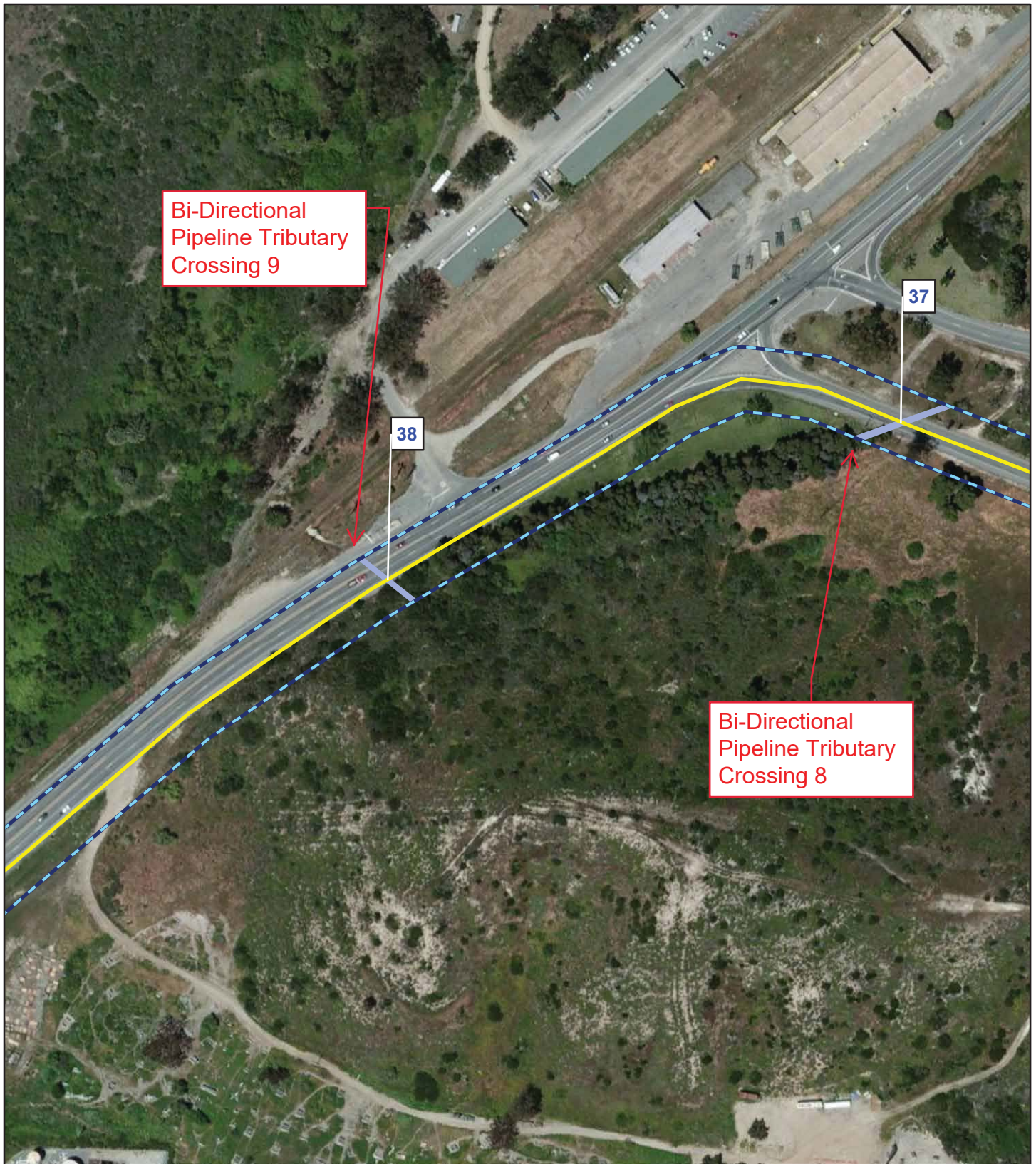


- Legend**
- Permanent Impact Area
 - Temporary Impact Area
 - Alternatives 1 and 2
 - MCB Camp Pendleton Boundary
 - # Feature Number
 - Sample Point and Number
 - ▲ Outside Wetland
 - Aquatic Features
 - Intermittent Riverine

Figure B-37
Wetlands and other Waters of the U.S.
for Alternatives 1 and 2







Bi-Directional Pipeline Tributary Crossing 9

Bi-Directional Pipeline Tributary Crossing 8

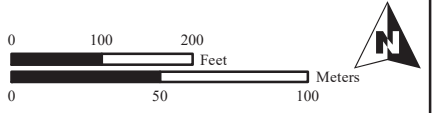
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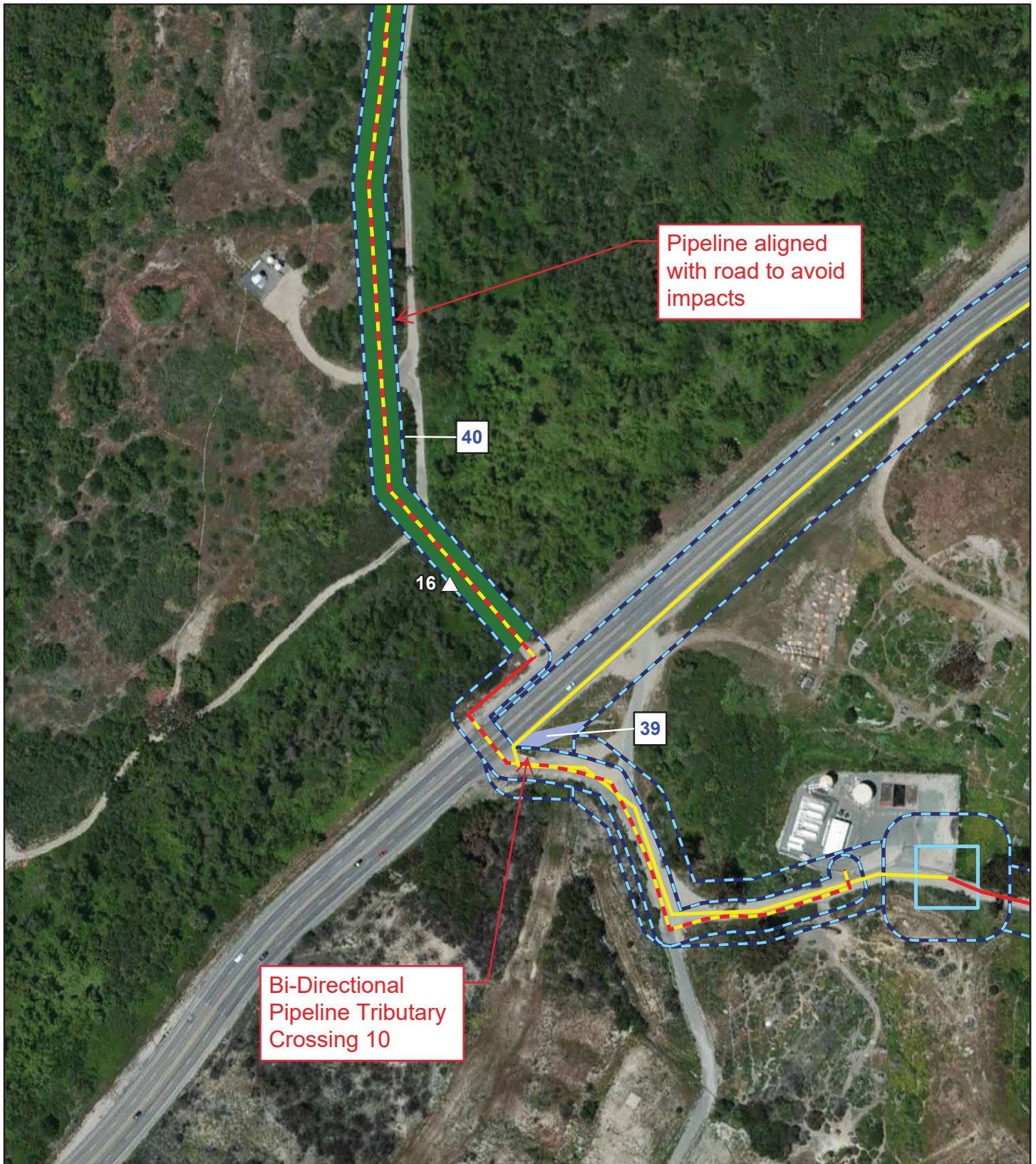
37



- Legend**
- Permanent Impact Area
 - Temporary Impact Area
 - Alternative 1
 - # Feature Number
 - Aquatic Features
 - Intermittent Riverine

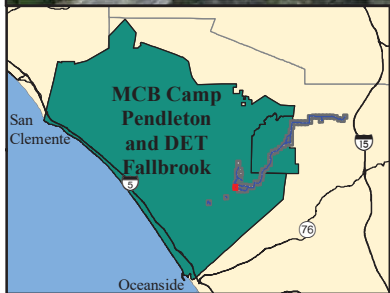
Figure B-47
Wetlands and other Waters of the U.S.
for Alternatives 1 and 2





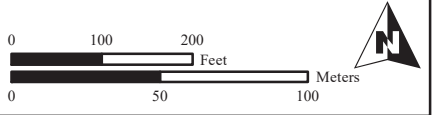
Pipeline aligned with road to avoid impacts

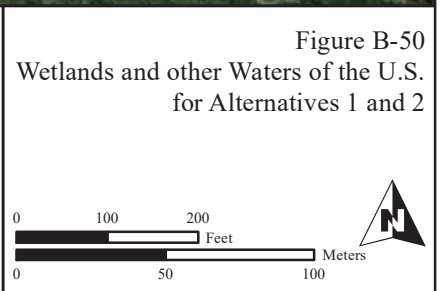
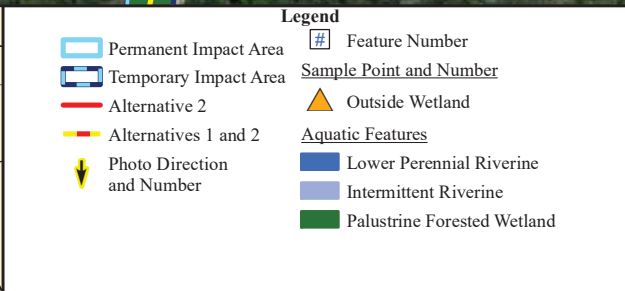
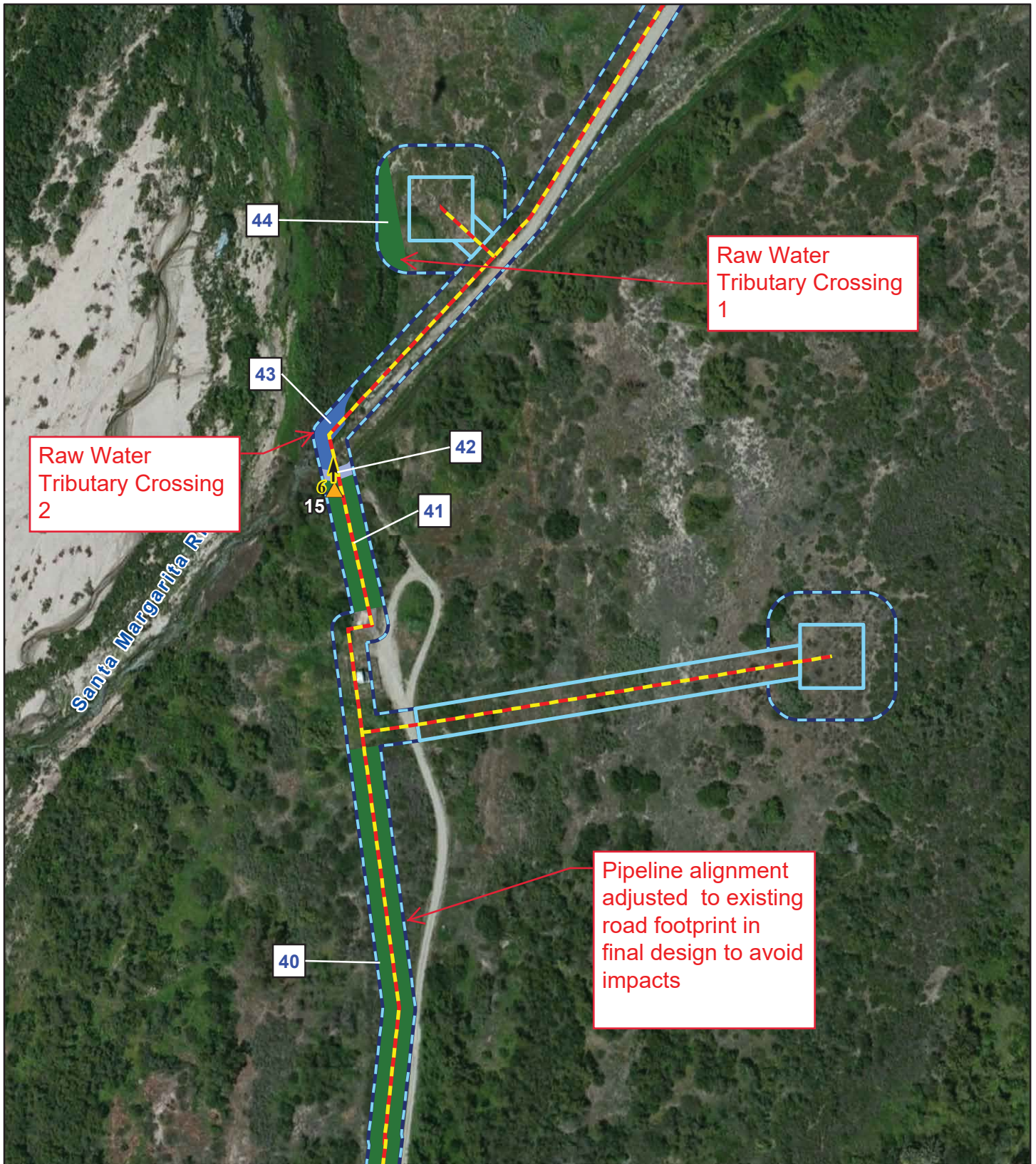
Bi-Directional Pipeline Tributary Crossing 10



- | | |
|-----------------------|-----------------------------|
| Permanent Impact Area | Feature Number |
| Temporary Impact Area | Sample Point and Number |
| Alternative 1 | Inside Wetland |
| Alternative 2 | Aquatic Features |
| Alternatives 1 and 2 | Intermittent Riverine |
| | Palustrine Forested Wetland |

Figure B-49
Wetlands and other Waters of the U.S.
for Alternatives 1 and 2

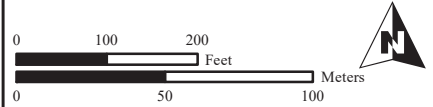






- Legend**
- Permanent Impact Area
 - Temporary Impact Area
 - # Feature Number
 - Aquatic Features**
 - Intermittent Riverine
 - Palustrine Unconsolidated Bottom
 - Palustrine Unconsolidated Shore

Figure B-55
Wetlands and other Waters of the U.S.
for Alternatives 1 and 2



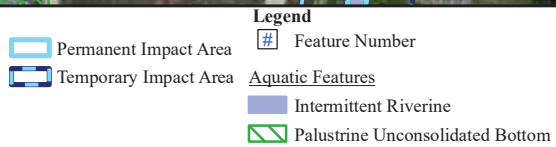
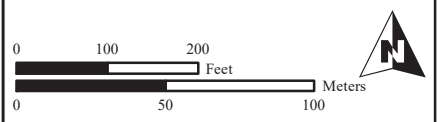
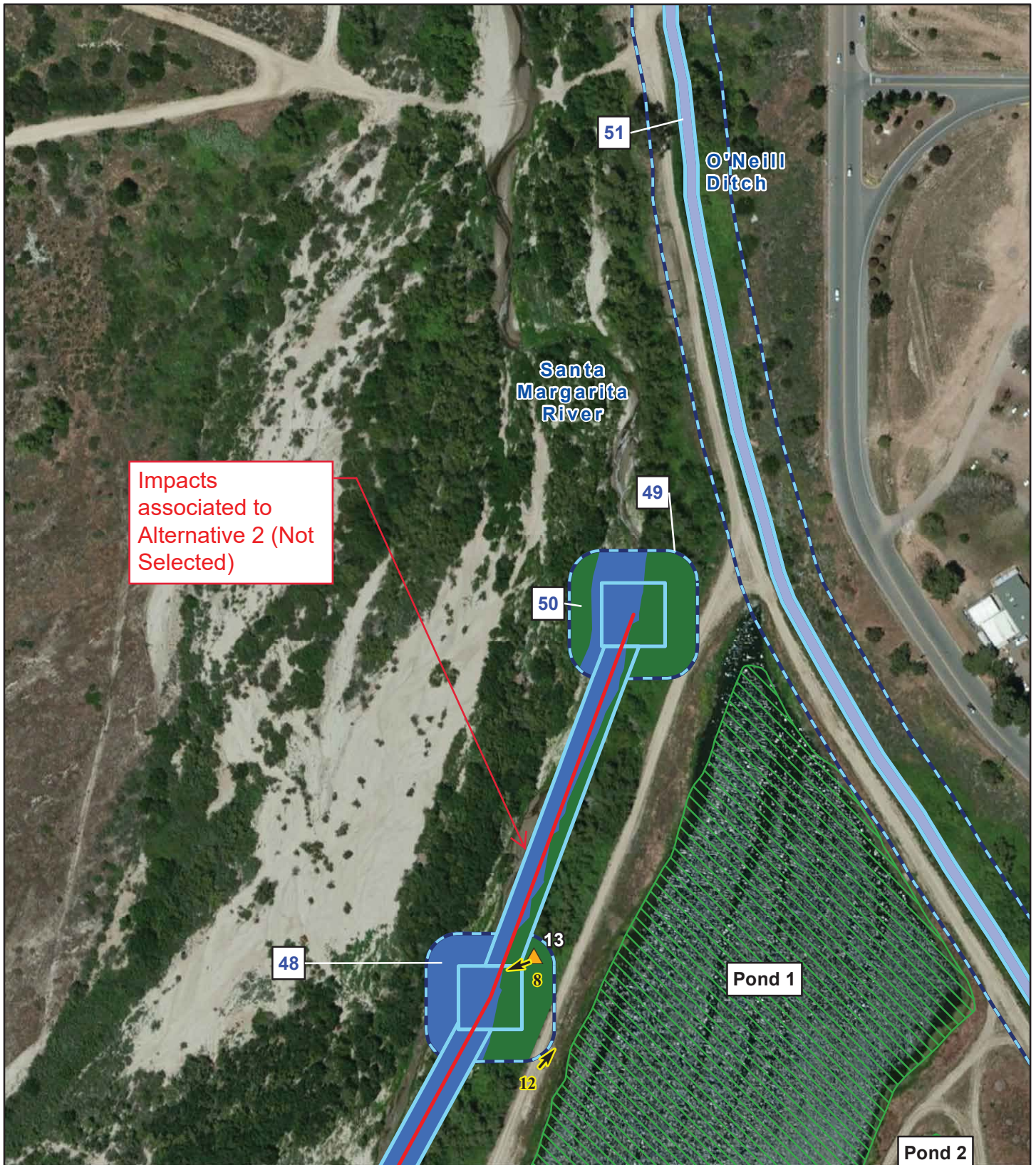
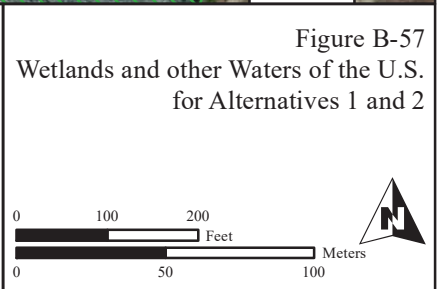
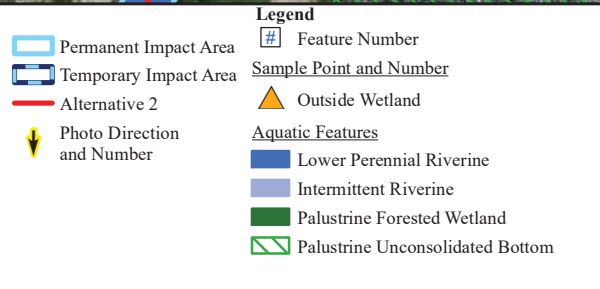


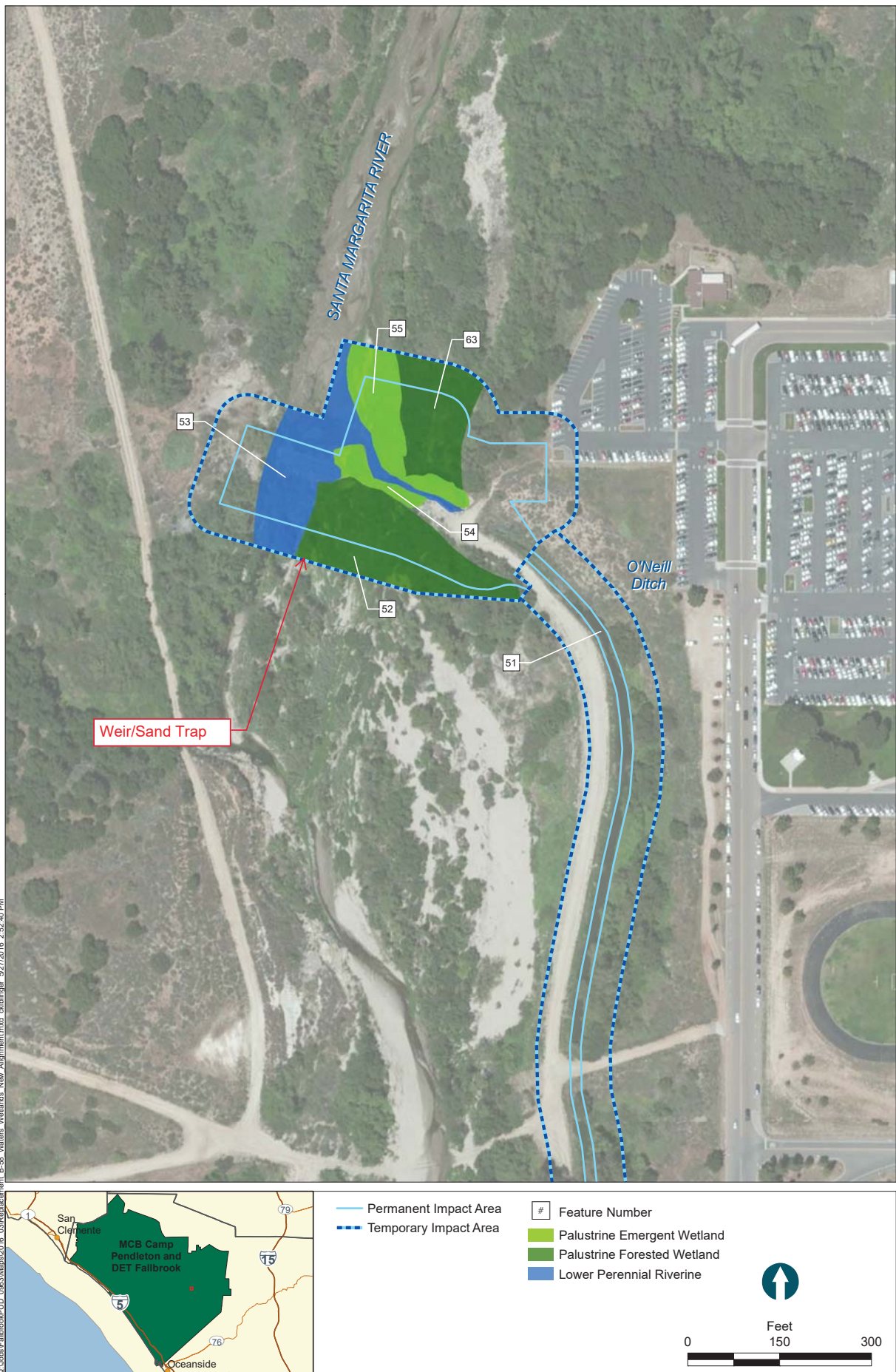
Figure B-56
Wetlands and other Waters of the U.S.
for Alternatives 1 and 2





Impacts associated to Alternative 2 (Not Selected)





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Figure 1
Replacement Figure B-58
Jurisdictional Resources Delineation Report Addendum
Santa Margarita River Conjunctive Use Project

Marine Corps Base Camp Pendleton
Santa Margarita River Conjunctive Use Permit
Certification No. R9-2016-0217

**ATTACHMENT 4
MITIGATION FIGURES**

Figure 1 – Mitigation Site Assessment Area Along Fallbrook Creek
Figures 2-8 – Photos of Proposed Fallbrook Creek Mitigation Site

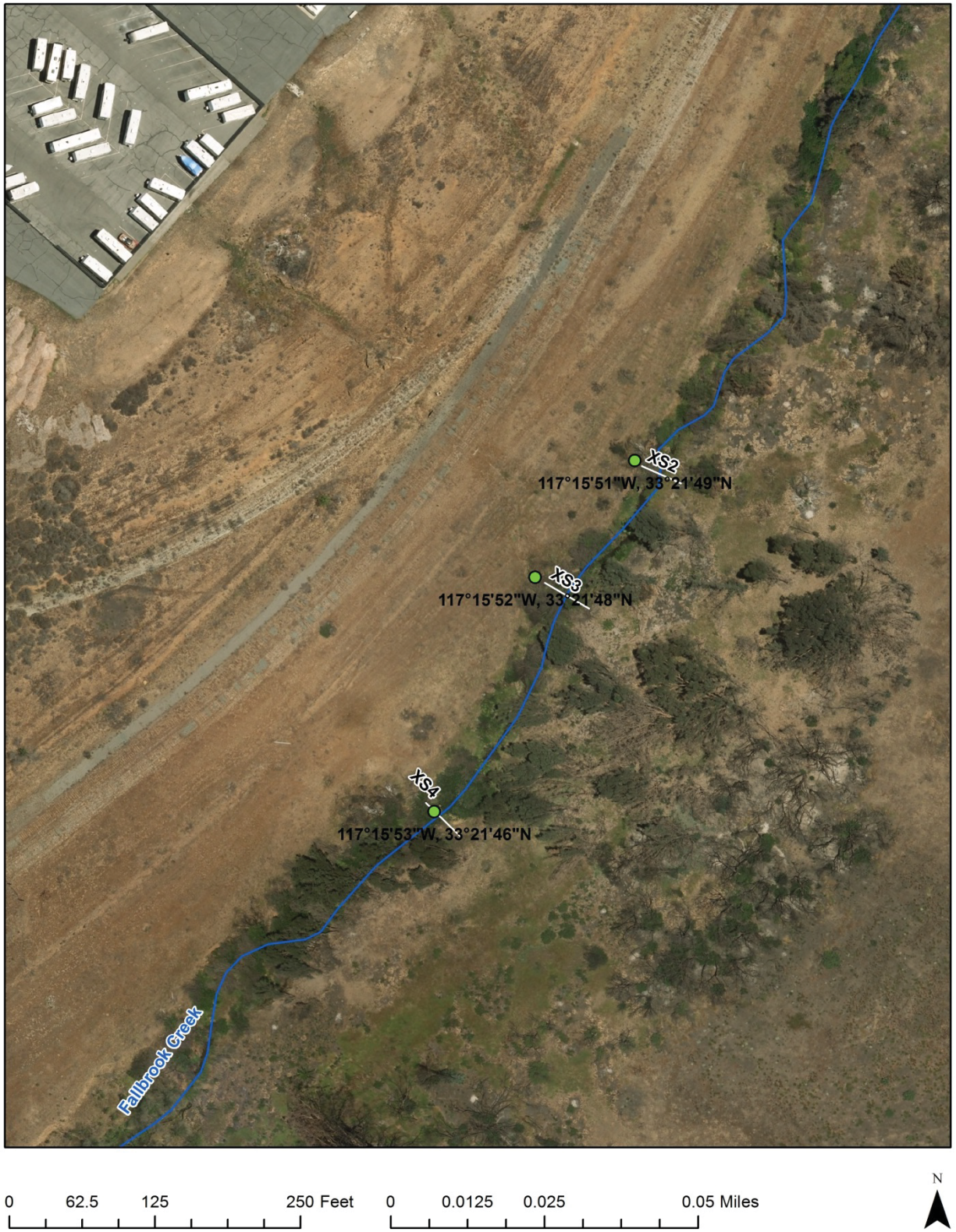


Figure 1. Site assessment area along Fallbrook Creek showing locations of the cross sections.



Figure 2. View looking northwest showing cross section XS2. Location of survey level is visible as well as the point used for the turn-point benchmark (pin flag in foreground).

7



Figure 3. View of right bank at XS2 looking downstream showing highly erodible streambanks typical of the assessment reach.

8



Figure 4. View looking southeast showing cross section XS3.

9



Figure 5. View looking southeast showing cross section XS3 with the surveying level moved to the turn point location and turn-point benchmark visible (pin flag location).

10



Figure 6. View looking southeast showing cross section XS4.

11



Figure 7. Additional view looking downstream. Deeply incised northwest bank is visible.

12



Figure 8. Additional view of the incised northwest stream bank.

13

Marine Corps Base Camp Pendleton
Santa Margarita River Conjunctive Use Permit
Certification No. R9-2016-0217

ATTACHMENT 5
CEQA MITIGATION MONITORING AND REPORTING PROGRAM

**Minimization, Mitigation, Monitoring, and Reporting Tracking Sheet
Santa Margarita River Conjunctive Use Project**

Special Conservation Measure (SCM) Number	Minimization, Mitigation, Monitoring, and Reporting Measure	Implement Procedure or Action	Responsible Organization(s)	Deliverable/ Report	Compliance Schedule	Verification of Compliance
General Construction Conservation Measures						
23	All mechanized clearing and grading, vehicle traffic, equipment staging, and the deposition of soil would be confined to the footprints defined in this Environmental Impact Statement/Environmental Impact Report (EIS/EIR). Construction site boundaries would be clearly delineated by flagging, stakes, survey lath, or snow fencing, as practical.	Construction contractor would implement SCM.	Construction contractor	None	Construction phase	
25	Project design would incorporate correct use of grading and drainage control to minimize erosion during the construction period, and procedures to ensure that slopes and backfilled areas do not erode when construction is completed. To prevent erosion and soil loss, excavation and grading during the rainy season (November 1 to May 1) would be minimized. Where it is impractical to avoid grading during the rainy season, erosion and sedimentation Best Management Practices (BMPs) would be installed and maintained immediately downslope of work areas until work is completed and graded areas have been re-contoured, physically stabilized, and planted. Erosion and sedimentation BMPs would be monitored during construction to ensure stabilization of the site.	Construction contractor would implement SCM.	Construction contractor	None	Construction phase	
26	Project design will avoid direct and indirect impacts to riparian habitats, jurisdictional waters, and other sensitive wetlands (e.g., vernal pools) to the greatest extent feasible. The limits of sensitive wetlands will be clearly marked in the field with markers or exclusion fencing, and these restricted areas will be monitored by the project biologist during construction phases to ensure that these areas are not being directly or indirectly impacted by project activities.	Construction contractor would implement SCM	Construction contractor	None	Construction phase	
27	Vernal pools have not been identified to occur within or immediately adjacent to the project footprint. If any previously undocumented and/or un-surveyed vernal pools are encountered before or during construction, these pools will be staked and protected from disturbance during pipeline construction unless and until the absence of listed species of fairy shrimp is confirmed by a USFWS approved biologist using an approved methodology.	Construction contractor would implement SCM	Construction contractor	None	Construction phase	
29	The proposed project would have a total area of greater than 1 acre (0.4 hectare) of soil disturbance and therefore, would be required to obtain coverage under the California Construction General Permit (CGP) for stormwater: State Water Resources Control Board [SWRCB] Order No. 2009 0009-DWQ (National Pollutant Discharge Elimination System [NPDES] No. CAS 000002) (SWRCB 2009a). Coverage under the CGP would be established for both traditional construction sites as well as Linear Utility Projects. Linear Utility Project activities include, but are not limited to, those activities necessary for the installation of underground and overhead linear facilities (e.g., conduits; substructures; pipelines; towers; poles; cables; wires; connectors; switching, regulating, and transforming equipment). Soil disturbance includes, but is not limited to, clearing, grading, grubbing, excavation, demolition, stockpiling, trenching, laydown areas, and construction of access roads. The project would comply with the provisions described	Obtain project coverage under California Construction General Permit. <ul style="list-style-type: none"> • Upload required documents to SMARTS website to obtain coverage under California Construction General Permit. Obtain WDID before initiation of any soil disturbance. • Ensure compliance with on-site stormwater requirements, upload 	Construction contractor	NOI, approved SWPPP, Risk Determination, Site Map, other supporting documentation, certification statement, permit fee check, and WDID number. Draft and Final	Design and construction phases	

**Minimization, Mitigation, Monitoring, and Reporting Tracking Sheet
Santa Margarita River Conjunctive Use Project**

Special Conservation Measure (SCM) Number	Minimization, Mitigation, Monitoring, and Reporting Measure	Implement Procedure or Action	Responsible Organization(s)	Deliverable/ Report	Compliance Schedule	Verification of Compliance
	<p>below:</p> <ul style="list-style-type: none"> The contractor would complete a risk determination and prepare a draft Stormwater Pollution Prevention Plan (SWPPP) in accordance with the risk level requirements in the CGP. The draft SWPPP and risk determination would be submitted to the FPUD for review at least 60 days prior to initiation of any soil disturbance. The risk determination and SWPPP would be prepared, stamped, and revised by a Qualified SWPPP Developer (licensed engineer, hydrologist, or other qualified professional identified in the permit). The contractor would obtain coverage under the CGP by uploading a Notice of Intent (NOI), approved SWPPP, risk determination, site map, and other supporting documentation to the California Stormwater Multi-Application and Report Tracking System (SMARTS) website. The FPUD would review, certify, and submit the NOI to the SWRCB. The contractor would submit a hard copy of the certification statement from SMARTS, together with a check for the permit fee, to the San Diego RWQCB, allowing 7-14 days for fee processing. A Waste Discharge Identification (WDID) number must be received from SMARTS prior to initiation of any soil disturbance. The project would comply with all provisions described in the CGP and strictly follow the SWPPP. The SWPPP would be maintained at the project site and updated as necessary to track modifications, Best Management Practice (BMP) location and implementation, training, etc. The certification statement would be included in the on-site SWPPP. On-site stormwater compliance would be the responsibility of the contractor's Qualified SWPPP Practitioner (certified professional identified in the CGP). The Qualified SWPPP Practitioner would be responsible for all required inspections, sampling, recordkeeping, and corrective actions. The contractor would upload all required documentation to the SMARTS website and notify the FPUD that documents are ready for review, certification, and submittal. Annually by 1 August, or upon completion of construction, whichever comes first, the contractor would upload a draft Annual Report, including records of all inspection, sampling, and corrective actions to the SMARTS website. The FPUD would review, certify, and submit the Annual Report to the SWRCB. Upon completion of construction, the contractor would upload the Notice of Termination (NOT) and supporting documentation to the SMARTS website. The FPUD would review, certify, and submit the NOT to the SWRCB. In order to terminate coverage, the project must meet permanent stabilization requirements specified within the CGP. The Annual Report and NOT must be accepted by the SWRCB before the contractor would be released from the contract. 	<p>all required documents to the SMARTS website, and notify FPUD that the documents are ready for review, certification, and submittal.</p> <ul style="list-style-type: none"> Annually by 1 August, or upon completion of construction, whichever comes first, upload a draft Annual Report, including records of all inspection, sampling and corrective actions to the SMARTS website. The FPUD would review, certify, and submit the Annual Report to the SWRCB. Upon completion of construction, upload the Notice of Termination (NOT) and supporting documentation to the SMARTS website. The FPUD would review, certify, and submit the NOT to the SWRCB. 		<p>Annual Report. Draft and Final NOT.</p>		
30	<p>In conjunction with the SWPPP, construction-related dust will be minimized by reducing vehicle speeds and traffic in newly cleared areas and covering or lightly spraying exposed soil piles with water when weather conditions warrant. Concrete discharge will not be allowed to reach surrounding water bodies or pools unless specifically authorized in a</p>	<p>Construction contractor would implement SCM</p>	<p>Construction contractor</p>	<p>None</p>	<p>Construction phase</p>	

**Minimization, Mitigation, Monitoring, and Reporting Tracking Sheet
Santa Margarita River Conjunctive Use Project**

Special Conservation Measure (SCM) Number	Minimization, Mitigation, Monitoring, and Reporting Measure	Implement Procedure or Action	Responsible Organization(s)	Deliverable/ Report	Compliance Schedule	Verification of Compliance
	Clean Water Act (CWA) discharge permit.					
31	The project site-specific excavation, grading, and filling plans, SWPPP, and BMPs for portions of the project within the community of Fallbrook will be reviewed by FPUD. The plans and BMPs will be approved by the FPUD, and any recommendations made by the FPUD will be incorporated into the project plans to ensure that soil loss and erosion are minimized. Erosion control measures will include any additional requirements of the applicable jurisdiction. Provisions for both temporary and permanent erosion and sediment controls will be implemented in accordance with the SWPPP prepared and designed specifically for the construction sites.	Construction contractor would implement SCM and FPUD will review.	Construction contractor/FPUD	Site specific excavation, grading and filling plans, SWPPP and BMPs for portions of the project within the community of Fallbrook	Construction phase	
32	Erosion and sedimentation controls will be monitored and maintained during construction and until disturbed areas are stabilized and not susceptible to further erosion, as approved by FPUD.	Construction contractor	Construction contractor/FPUD	Erosion and sediment controls	Construction phase	
34	Fueling and lubrication of equipment during all phases of construction would be allowed only in designated staging areas specified on the construction maps or on construction right-of-way and would not occur within 100 ft (30 m) of drainages. Portable fuel tanks would be secured in moving vehicles to prevent spills. Emergency provisions would be in place at all crossings before the onset of construction to prevent accidental spills from contaminating downstream habitats.	Ensure that fueling and minor equipment maintenance would take place within existing paved areas or identified laydown areas, and occur at least 100 feet away from drainages. Cleaning of vehicles and equipment should take place off-site where feasible. Rinsing of vehicle tires and undercarriage for the purpose of dust control shall be performed within designated bermed areas.	Construction contractor	None	Construction phase	
35	Heavy equipment and construction activities would be restricted to existing roads and disturbed areas to the maximum extent practicable. Staging areas would be located in disturbed habitats and would be delineated on the grading plans. Vehicle operation and laydown areas would be defined by staking and flagging between stakes to prevent operations outside these areas.	Construction contractor would implement SCM.	Construction contractor	None	Construction phase	
36	Construction work at night would be avoided to the greatest extent possible. Where it cannot be avoided, nighttime construction lighting would be shielded so that light dispersal into adjacent native habitats is significantly reduced. Other methods of reducing light pollution (e.g., dusk-to-dawn sensor activation, motion-sensitive activation, low-lumen or limited-spectrum lighting) would also be applied as possible. Permanent outdoor lighting installed at proposed facilities would also be shielded (or use other methods of reducing light pollution; e.g., motion-sensitive activation) to maximally reduce light pollution into adjacent native plant communities.	Construction contractor would implement SCM.	Construction contractor	None	Construction phase	

**Minimization, Mitigation, Monitoring, and Reporting Tracking Sheet
Santa Margarita River Conjunctive Use Project**

Special Conservation Measure (SCM) Number	Minimization, Mitigation, Monitoring, and Reporting Measure	Implement Procedure or Action	Responsible Organization(s)	Deliverable/ Report	Compliance Schedule	Verification of Compliance
38	All in-stream construction or dredging would incorporate equipment decontamination before construction activities begin to prevent the potential spread of non-native aquatic species.	Construction contractor would implement SCM.	Construction contractor	None	Construction phase	
39	Construction workers would be prohibited from bringing domestic pets to construction sites to ensure that domestic pets do not disturb or depredate wildlife in adjacent habitats.	Construction contractor would implement SCM.	Construction contractor	None	Construction phase	
40	The project site would be kept as clean as possible to avoid attracting predators. All food-related trash would be placed in sealed bins or removed from the site regularly.	Construction contractor would implement SCM.	Construction contractor	None	Construction phase	
41	All construction and maintenance-related debris would be disposed of properly and would not be discarded on site. The site would be restored to as near the original biological condition as possible once the project is completed.	Construction contractor would implement SCM.	Construction contractor	None	Construction phase	
42	Construction workers would use portable chemical toilets, with secondary containment basins to prevent spillage, during construction. Chemical toilets would not be placed within 100 ft (30 m) of riparian habitat except on existing roads.	Construction contractor would implement SCM.	Construction contractor	None	Construction phase	
43	Conservation measures specified herein for construction activities would also apply during operations to non-emergency maintenance or repair activities that necessitate heavy equipment operation, excavation, or vegetation removal. Such activities would be coordinated with CDFW on non-federal land.	Construction contractor would implement SCM.	Construction contractor	None	Construction phase	
44	An Emergency Response Plan would be prepared to specify measures to be taken in emergencies that pose an immediate threat to public safety or property. The plan would identify points of contact and appropriate notification and monitoring protocols in the event of potential damage to sensitive natural or cultural resources.	Prepare and implement an Emergency Response Plan.	Construction contractor	Emergency Response Plan	Construction phase	
Geological Resources						
47	<p>Before construction begins, a project-specific geotechnical study would be conducted that would provide seismic design parameters in accordance with the Uniform Building Code and the California Building Code; specify requirements for trench excavation and pipeline construction to prevent collapse during construction; and slope stability parameters and foundation setbacks. The geotechnical study would include the following:</p> <ul style="list-style-type: none"> The geotechnical report would include an evaluation of the suitability of excavated materials as trench backfill, and recommendations for screening, compaction, and filling procedures to ensure stability of the pipe bedding and cover. The geotechnical report would also evaluate the engineering characteristics of the soils in the area where the retaining walls and concrete slab apron for the inflatable weir diversion structure would be constructed and provide recommendations for slope excavation 	Prepare Geotechnical Report and implement design recommendations during final design of project.	Engineering contractor	Geotechnical Report	Design phase	

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	<p>and compaction to ensure foundation stability. During the geotechnical study, soil corrosive potential would also be evaluated, and recommendations would be provided for concrete and metal component design to provide corrosion resistance as needed, and ensure slope/surface stability.</p> <ul style="list-style-type: none"> • Design and construction procedures would use recommendations from the geotechnical study based on site specific information regarding groundwater depth and soil characteristics to minimize differential settlement in specific areas determined to be subject to liquefaction. • The overall project siting would conform to existing topography to minimize slope cut and fill; levees and berms would be properly designed and constructed to ensure constructed slope stability, and subsurface filling would be done in accordance with the geotechnical report recommendations for stability. These procedures would be utilized to ensure that there would be no significant impacts with respect to slope stability and landslides with implementation of the project. 					
48	All new FPUD facilities would be constructed in accordance with FPUD design standards and any excavations in County roads or right-of-ways would be coordinated with the County and meet County of San Diego requirements.	Engineering Contractor would coordinate design of project with the FPUD.	Engineering contractor and FPUD	None	Design phase	
Water Resources						

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49	<p>For project components that would, or would be likely to, involve groundwater extraction (dewatering) at construction sites, foundation dewatering, or groundwater extraction associated with a remediation/cleanup project, the FPUD would be contacted for guidance. Disposal options for groundwater may include the following:</p> <ul style="list-style-type: none"> a. Discharges of uncontaminated groundwater to land would comply with the San Diego Basin Plan Conditional Waiver No. 2-“Low Threat” Discharges to Land found in San Diego RWQCB Resolution No. R9-2007-0104 (San Diego RWQCB 2007). Land applied water may not discharge to Clean Water Act (CWA) jurisdictional surface waters b. Discharges to the sanitary sewer system would be requested through FPUD. c. If options (1) and (2) are not feasible, discharges to storm drains or surface waters (including seasonally dry channels) would obtain coverage under the San Diego General Groundwater Permit, San Diego RWQCB Order No. R9-2008-0002 (NPDES No. CAG919002) (San Diego RWQCB 2008). Sampling and/or treatment may be required and the responsibility of the contractor performing the work. Application for permit coverage must be submitted to and would be the responsibility of the contractor performing the work. Application for permit coverage must be submitted to the FPUD, at least 60 days prior to the planned commencement of the discharge. The FPUD would review and certify the application, and the contractor would then submit the application and permit fee to the San Diego RWQCB. A WDID number must be received from the San Diego RWQCB prior to initiation of dewatering. A NOT must be accepted by the San Diego RWQCB before the contractor would be released from the contract. 	Coordinate any proposed dewatering operations with the FPUD prior to construction.	Construction contractor	None	Design phase	
51	<p>For discharges of potable water resulting from hydrostatic testing, repair, or maintenance of potable water pipelines, tanks, or vessels associated with drinking water purveyance and storage, the FPUD, would be contacted for guidance. Disposal options for discharged potable water may include the following:</p> <ul style="list-style-type: none"> a. Discharges to land would comply with the San Diego Basin Plan Conditional Waiver No. 2-“Low Threat” Discharges to Land found in San Diego RWQCB Resolution No. R9-2007-0104 (San Diego RWQCB 2007). Land applied water may not discharge to CWA jurisdictional surface waters. b. Discharges to the sanitary sewer system would be requested through the FPUD. c. If options (1) and (2) are not feasible, discharges to storm drains or surface waters (including seasonally dry channels) would obtain coverage under the San Diego RWQCB Order No. R9-2010-0003 (NPDES No. CAG679001) (San Diego RWQCB 2010). 	Coordinate any proposed discharges of potable water resulting from hydrostatic testing, repair, or maintenance of potable water pipelines, tanks, or vessels associated with drinking water purveyance and storage with FPUD prior to construction.	Construction contractor	None	Design phase	

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52	Discharges of uncontaminated slurries or drilling muds (i.e., from horizontal directional drilling) to land would comply with San Diego Basin Plan Conditional Waiver No. 9-Discharges of Slurries to Land found in San Diego RWQCB Resolution No. R9-2007-0104 (San Diego RWQCB 2007). FPUD would be contacted for further guidance.	Coordinate any proposed discharges of uncontaminated slurries or drilling muds with FPUD prior to construction.	Construction contractor	None	Design phase	
53	Concreting operations would be conducted to ensure discharge water, including washout, associated with these operations does not reach surrounding water bodies or pools unless specifically authorized in a CWA discharge permit.	Coordinate any proposed concreting operations with FPUD prior to construction.	Construction contractor	None	Design phase	
Biological Resources						
55	After final design of the project, the design contractor will provide geographic information system (GIS) shapefiles, including the project footprint and amount/type of vegetation impacted (including both temporary and permanent) to FPUD to provide to the USFWS with summary tables showing amount/type of vegetation impacted (including both temporary and permanent) based on final project designs.	Provide geographic information system shapefiles showing footprint and amount/type of vegetation impacted (both temporary and permanent)	Construction contractor/FPUD	GIS shapefiles	Design phase	
56	After construction impacts to vegetation, the construction contractor will provide GIS shapefiles, including the project footprint and amount/type of vegetation impacted (including both temporary and permanent), to FPUD. FPUD will provide the USFWS with summary tables showing amount/type of vegetation impacted (including both temporary and permanent) based on actual project impacts.	Provide geographic information shapefiles, including the project footprint and amount/type of vegetation impacted (both temporary and permanent)	Construction contractor/FPUD	GIS shapefiles	After Construction Phase	
57	Temporary impacts to riparian vegetation, arroyo-toad occupied upland vegetation, gnatcatcher occupied coastal sage scrub (CSS) and Stephens' kangaroo rat (SKR) habitat from project construction will be restored onsite following impact.	Restore riparian vegetation, arroyo-toad occupied upland vegetation, gnatcatcher-occupied coastal sage scrub (CSS) and Stephens kangaroo rat habitat	Construction contractor	None	After Construction Phase	
Primary Project Biologist						
62	A primary project biologist would oversee avoidance and minimization measures specified within these SCMs. Different project biologists may be designated for specific measures listed based on the qualifications necessary to satisfy the specific measure. If multiple project biologists are required, their activities would be coordinated through one primary project biologist. The primary project biologist would have sufficient training and experience to identify all of the federally listed species and their habitats that are likely to be encountered within or near the project footprint. The project biologist(s) would have experience and training necessary to conduct tasks described in BO for this project. Required experience for the project biologist(s) will include but is not limited to the following: <ul style="list-style-type: none">The project biologist will have experience in wetland biology necessary to fulfill the	The primary project biologist would oversee avoidance and minimization measures specified within these SCMs.	Primary project biologist and FPUD	None	Construction phase	

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	<p>requirements of the Clean Water Act Sections 401 and 404 if applicable.</p> <ul style="list-style-type: none"> The project biologist will be knowledgeable of and able to identify weed species listed in the California Invasive Plant Inventory to assist with weed control and restoration activities. The project biologist for measures associated with ARTOs would have at least 2 years of independent experience conducting arroyo toad surveys and have demonstrated experience in handling ARTOs. The project biologist for measures associated with the flycatcher will be a trained ornithologist with at least 40 hours of observation in the field with the target species and documented experience locating and monitoring nests of the target species. The project biologist for measures associated with SKR will have at least 10 years of experience trapping both SKR and Dulzura kangaroo rat (<i>Dipodomys simulans</i>; DKR). At a minimum, the project biologist will have at least 40 sessions of supervised SKR trapping across multiple areas, including areas where both SKR and DKR co-occur, with a demonstrated ability to distinguish identifying features of these two species; supervised handling and identification of at least 20 SKR and 20 DKR during trapping sessions; demonstrated ability to identify appropriate SKR habitat, develop appropriate trap-placement designs, set and bait traps, and safely extract and handle all species that may be captured. 					
Seasonal Restrictions						
67	All vegetation clearing required by the proposed project would occur outside of the nesting season for avian species (February 15 to August 31). i.e., vegetation clearing will occur from September 1 to February 14.	Coordinate construction schedule with FPUD. Have an approved on-site contracted biological construction monitor ensure that all measures to protect avian species are implemented.	Construction contractor/project biologist and FPUD	None	Design and construction phases	
Cultural Resources						
121	Should buried cultural resources and/or human remains be encountered during construction activities on non-DOD lands, the discovery would be treated according to procedures outlined in the County of San Diego guidelines for determining significance of cultural resources pursuant to CEQA (County of San Diego 2007a), and PRC Section 5097.98 for human remains. In addition, any required cultural monitoring, development, and or review of a monitoring plan would be consistent with the Section 106 consultation.	Have an on-site contracted archaeologist review the final proposed alignment and construction activities and determine the need for on-site monitoring.	Construction contractor/FPUD	Contracted archaeologist reviews final proposed alignment and construction activities and determines need for on-site monitoring.	Design phase	
Air Quality						
122	Fugitive dust control measures would be implemented to reduce emissions of particulate matter (less than or equal to 10 microns in diameter [PM10] and particulate matter less than or equal to 2.5 microns in diameter [PM2.5]) to the extent possible. These measures	Construction contractor would implement SCM.	Project proponent, construction oversight authority, or duly	None	Construction phase	

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	include watering unpaved roads and actively graded surfaces up to three times daily, as well as reducing speeds on unpaved roads to 15 miles per hour (mph) (24 kilometers per hour [kph]), suspending grading activities if wind speeds exceed 25 mph (40 kph), and replacing ground cover in graded areas as soon as possible. Watering would be done lightly to avoid the accumulation of surface water.		designated contractor			
123	The FPUD would develop a construction specification for the construction work that will implement BMPs to minimize air emissions from equipment and vehicles. The specification will include requirements for minimizing construction-related trips, minimizing idling, and proper equipment maintenance and inspection.	Develop a construction specification as identified in SCM.	FPUD	Construction specifications to limit air quality impacts	Design phase	
Hazardous Wastes and Materials						
126	If pipeline construction activities encounter potentially contaminated soil (i.e., discolored and or odorous) within the community of Fallbrook, the soil would be managed in accordance with all applicable federal, state, County of San Diego, and federal requirements, as well as any additional requirements specific to the applicable jurisdiction.	Prepare Soil Management Plan	Construction contractor	Soil Management Plan	Design and construction phases	
127	It is likely that the proposed project footprint may encounter contaminated groundwater from underground storage tank sites. If pipeline construction activities encounter potentially contaminated groundwater, the water would be managed in accordance with all applicable federal, state, County of San Diego, and federal requirements, as well as any additional requirements specific to the applicable jurisdiction.	Coordinate any proposed dewatering operations within any known or suspected groundwater contaminant plume FPUD prior to construction.	Construction contractor	None	Design and construction phases	
130	A Hazardous Materials Business Plan would be prepared in accordance with County of San Diego guidelines to describe how the construction worker would manage their hazardous materials during construction.	Prepare Hazardous Materials Business Plan.	Construction contractor.	Hazardous Materials Business Plan	Design phase	
131	An Oil Spill Response Plan (OSRP) would be prepared and reviewed and approved by appropriate federal, state, and local agencies. The OSRP is required under state and federal regulations (Senate Bill 2040 and 40 CFR § 300, the National Oil and Hazardous Substances Pollution Contingency Plan). The OSRP provides a list of emergency service providers. For project components on non-federal land, FPUD would comply with requirements of CDFW, Office of Spill Prevention and Response.	Prepare Oil Spill Response Plan.	Construction contractor	Oil Spill Response Plan	Design phase	
Utilities						
132	During project design, pipeline alignments and construction footprints would be selected to avoid or minimize disruption of existing utilities. The location of underground utilities	Design engineer would	Engineering contractor	None	Design phase	

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	would be verified prior to excavation to further avoid impacts. Also, the design of new electrical transformers and panels that would be needed to supply power to the wells would be coordinated closely with San Diego Gas & Electric (SDG&E) to minimize or eliminate any temporary disruption of power supplies during construction and start-up.	implement SCM.				
136	The project proponent or contractor would submit an amended drinking water permit to modify, add to, or change the source of supply or method of treatment of, or change in the distribution system as authorized by a valid existing permit in accordance with California Health and Safety Code §116550.	FPUD would submit an amended drinking water permit.	FPUD	Amended drinking water permit	Operational phase	
138	The contractor would ensure potable water pipeline separation and installation standards are followed as outlined in CCR Title 22, § 64572.	Construction contractor would implement SCM.	Construction contractor	None	Construction phase	
139	To avoid cross contamination of potable water lines, any water lines installed adjacent to sanitary sewer lines would be installed in accordance with California Department of Public Health separation requirements.	Construction contractor would implement SCM.	Construction contractor	None	Construction phase	
140	The contractor would ensure that new potable water pipelines installed or that have been taken out of service for repairs (de-pressurized) would be disinfected and sampled for bacteriological quality prior to use, in accordance with the American Water Works Association Standard C651-05. Water samples would be required to be negative for coliform bacteria prior to the main (s) being placed in service in accordance with CCR Title 22, §64580.	Construction contractor would implement SCM.	Construction contractor	None	Construction phase	
141	The water source of a public water system would be required to have the capacity to meet the system's maximum day demand regularly, in accordance with CCR Title 22 §64554. A Source Capacity Planning Study may be required if there is difficulty with the water system's source capacity or proposed expansion by the DPH.					

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List of Acronyms

BMP	Best Management Practice
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CGP	California General Permit
CAGN	California gnatcatcher (<i>Polioptila Californica Californica</i>)
CWA	Clean Water Act
DOD	Department of Defense
EIS/EIR	Environmental Impact Statement/Environmental Impact Report (EIS/EIR)
FPUD	Fallbrook Public Utility District
Kph	Kilometers per hour
LBVI	least Bell's vireo (<i>Vireo bellii pusillus</i>)
MCB	Marine Corps Base
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
OSRP	Oil Spill Response Plan
PM	Particulate Matter
RWQCB	Regional Water Quality Control Board
SCM	Special Conservation Measure
SDG&E	San Diego Gas & Electric
SMARTS	Stormwater Multi-Application and Report Tracking System
SWRCB	State Water Resources Control Board
SWPPP	Stormwater Pollution Prevention Plan
WDID	Waste Discharge Identification