SPECIAL PUBLIC NOTICE

U.S. ARMY CORPS OF ENGINEERS **BUILDING STRONG®**
LOS ANGELES DISTRICT

PROPOSED
Clean Water Act Section 404 Letter of Permission Procedures for OCTA Renewed Measure M (M2) Freeway Program Projects

Public Notice/Application No.: SPL-2012-00830-VCL
Project: Orange County Transportation Authority Renewed Measure M (M2) Freeway Program Projects
Comment Period: April 6, 2015 - May 20, 2015
Project Manager: Veronica Li; 213-452-3292; Veronica.C.Li@usace.army.mil

Co-Applicant
Kai Mortazavi
Executive Director of Planning
Orange County Transportation Authority
560 South Main Street
P.O. Box 14184
Orange, California 92683

Co-Applicant
Sylvia Vega, Chief
Environmental Planning
California Department of Transportation, District 12
334 Michelson Drive, Suite 100
Irvine, California 92612

Agent
Lexi Kessans
Glenn Lukos Associates
29 Orchard
Lake Forest, CA 92630

Location

The areas that would be affected by the Orange County Transportation Authority's (OCTA) Renewed Measure M (M2) Freeway Program Projects include various locations in Orange County, within or near the cities of Anaheim, Brea, Costa Mesa, Fountain Valley, Fullerton, Garden Grove, Hawaiian Gardens, Huntington Beach, Irvine, Laguna Hills, Laguna Niguel, Laguna Woods, Lake Forest, Los Alamitos, Mission Viejo, Orange, Placentia, Rossmoor, San Juan Capistrano, Santa Ana, Seal Beach, Tustin, Westminster, and Yorba Linda (Enclosure 1). Corps jurisdictional water bodies that would be affected by project construction activities include Aliso Creek, Anaheim Barber City Channel, Bee Canyon Wash, Bolsa Chica Channel, Carbon Canyon Diversion Channel, Copa De Oro Channel, Coyote Creek, East Garden Grove Wintersburg Channel, El Modena/Irvine Channel, Fountain Valley Channel, Gisler Channel, Greenville Banning Channel, Heil Avenue Storm Channel, Lane Channel, Los Cerritos Channel, Mainway Drive Channel, Ocean View Channel, Oso Creek, Peters Canyon Channel, San Diego Creek, San Gabriel River, Santa Ana Delhi Channel, Santa Ana River, Santiago Creek, Seal Beach Boulevard Channel, Tonner Canyon, Westminster Avenue Channel, and Westminster Channel.

The project areas addressed by this program are located on the following U.S. Geological (USGS) Survey 7.5-minute topographic quadrangle maps: Anaheim (USGS 1981), La Habra (USGS 1981), Lake Forest (El Toro) (USGS 1997), Los Alamitos (USGS 1981), Newport Beach (USGS 1981), Orange (USGS 1981), San Juan Capistrano (USGS 1981), Seal Beach (USGS 1981), Tustin (USGS 1981), and Yorba Linda (USGS 1981). Within these USGS quadrangles, the project alignments would affect multiple townships and ranges, as shown in Enclosure 2. Detailed aerial maps of the project areas are enclosed (Enclosure 3).

Purpose

This Special Public Notice concerns the U.S. Army Corps of Engineers (Corps), Los Angeles District's proposal, pursuant to 33 Code of Federal Regulations (C.F.R.) section 325.2(e), to establish

alternative permitting procedures to address anticipated discharges of dredged and fill materials into waters of the U.S. associated with constructing OCTA's M2 Freeway Program projects over the next 15-20 years. The estimated schedule for each M2 Freeway Program project is provided on Enclosure 4: Freeway Project Description and Schedule of this notice. Specifically, new Letter of Permission (LOP) procedures for the OCTA M2 Freeway Program projects are proposed to more efficiently evaluate and, if determined eligible by the Corps in coordination with other federal and state agencies, authorize program activities that would discharge dredged or fill material into waters of the United States (U.S.), as regulated under section 404 of the Clean Water Act (CWA).

The overall OCTA M2 Freeway Program projects consist of thirteen (13) capital highway improvement projects in Orange County described in the Transportation Investment Plan (TIP) (http://www.octa.net/pdf/investmentplanb.pdf). Discharges of fill into waters of the U.S. associated with two M2 Freeway Program projects (H and J as referenced in the TIP) were separately authorized by the Corps, under our Nationwide Permit (NWP) program (the NWP program was established at the national level to address specific categories of activities, such as linear transportation projects, resulting in no more than minimal adverse effects on the aquatic ecosystem on an individual and cumulative basis). The remaining capital highway improvement projects as listed and described on Enclosure 4: Freeway Project Description and Schedule of this notice (A, B, C ("Northern Segment"), D, E, F-North, F-South, G-North, G-South, I, K[1], and L) would be evaluated for eligibility under LOP procedures established for this freeway improvements program. Although the M2 program is described as 13 projects, many projects have various segments or occur within the footprint of another project. As such, this notice generally describes the subset of OCTA M2 Freeway Program projects and its various segments that are proposed for LOP procedures and are herein referred to as 'M2 LOP projects'.

The establishment of LOP procedures is an alternative regulatory mechanism to the Corps' typical evaluation of permit applications for individual projects as they are submitted to our agency (i.e., a reactive approach to administering the Corps' Regulatory Program). The proposed LOP procedures are intended to increase transparency, efficiency, and effectiveness in evaluating the aquatic ecosystem effects of constructing the M2 LOP projects in total, in a more proactive manner, rather than reviewing each individual project application as it is submitted to us; with many of these individual projects likely to be eligible for authorization under the Corps' NWP program, and therefore, not needing to be reviewed by other agencies or the public. Such a programmatic review allows the Corps to evaluate aquatic resource impacts more holistically, including the adequacy and appropriateness of compensatory mitigation options that could offset unavoidable impacts to the aquatic ecosystem resulting from the individual projects. In fact, the co-applicants seek to implement compensatory mitigation as soon as possible once LOP procedures are established, potentially in advance of impacting the aquatic ecosystem to construct the M2 LOP projects; implementing compensatory mitigation in advance or concurrent with impacts of waters of the U.S. would minimize temporal losses of aquatic functions and services that often occur between the time aquatic resources are lost at impact sites and such resources are gained at approved compensatory mitigation sites. If established, these LOP procedures would be used to authorize activities that have less than significant individual and cumulative adverse effects on the aquatic environment; in fact, as noted, many of the proposed impacts to waters of the U.S. from the M2 LOP projects would qualify for authorization under the Corps' NWP program and, as such, would result in no more than minimal adverse effect to the aquatic ecosystem on an individual and cumulative basis. Activities that could result in significant individual or cumulative adverse effects on the aquatic environment would not be eligible for authorization under any established LOP procedures. For more information see page 3 of this notice.

[1] The Project M footprint occurs within the Project K footprint and is considered a part of that project.

Interested parties are hereby notified that an application has been received for Department of the Army establishment/authorization of alternative permitting procedures as described herein pertaining to the freeway improvement projects and shown on the attached drawing(s). We invite you to review today's public notice and provide views on the proposed CWA section 404 LOP procedures for addressing anticipated discharges of dredged and fill material into the aquatic ecosystem associated with constructing the M2 LOP projects. By providing substantive, site-specific comments to the Corps Regulatory Division, you provide information that support the Corps' decision-making process. All comments received during the comment period become part of the record and will be considered in the Corps' decision. The LOP procedures will be established/authorized with special conditions, or denied under section 404 of the Clean Water Act.

Comments should be mailed to:

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, U.S. ARMY CORPS OF ENGINEERS
REGULATORY DIVISION
ATTN: Veronica C. Li, Senior Project Manager
915 Wilshire Boulevard, Suite 930
Los Angeles, CA 90017-3401

Alternatively, comments can be sent electronically to: Veronica.C.Li@usace.army.mil

Evaluation Factors

The decision whether to establish/authorize LOP procedures for the M2 LOP projects will be based on an evaluation of the probable impacts including cumulative impacts of the proposed activities on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against the reasonably foreseeable detriments. All factors that may be relevant to the proposal will be considered, including the cumulative effects thereof. Factors that will be considered include conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people. In addition, because the proposal would result in the discharge of dredged or fill material into waters of the U.S., it would be subject to evaluation under the EPA Guidelines (40 CFR Part 230), as required by section 404 (b)(1) of the Clean Water Act.

The Corps of Engineers is soliciting comments from the public; federal, state, and local agencies and officials; Indian tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to establish/authorize, modify, condition, or deny permit procedures for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact

Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Background

In accordance with 33 C.F.R. section 325.2(e), the Corps is authorized to use "alternative procedures", including LOPs, to authorize activities under the Corps Regulatory Program, pursuant to section 10 of the Rivers and Harbors Act or section 404 of the Clean Water Act. LOPs are a type of individual permit issued through an abbreviated processing procedure completed by the Corps that includes coordination with other federal and state fish and wildlife agencies, as required by the Fish and Wildlife Coordination Act, the Regional Administrator of the EPA, the state water quality certifying agency, and, if appropriate (in or affecting the coastal zone), the state Coastal Zone Management Agency, as well as a public interest evaluation, but without publishing an individual public notice for each proposed action. In accordance with 33 C.F.R. §325.2(e)(1), LOPs may be used:

(i) In those cases subject to section 10 of the RHA when, in the opinion of the district engineer, the proposed work would be minor, would not have significant individual or cumulative impacts on environmental values, and should encounter no appreciable opposition.
(ii) In those cases subject to section 404 of the CWA after:
  (A) The district engineer, through consultation with federal and state fish and wildlife agencies, the Regional Administrator, Environmental Protection Agency, the state water quality certifying agency, and, if appropriate, the state Coastal Zone Management Agency, develops a list of categories of activities proposed for authorization under LOP procedures;
  (B) The district engineer issues a public notice advertising the proposed list and the LOP procedures, requesting comments and offering an opportunity for public hearing; and
  (C) A 401 Water Quality Certification has been issued or waived and, if appropriate, Coastal Zone Management (CZM) consistency concurrence obtained or presumed either on a generic or individual basis.

LOP authorizations differ from a standard individual permit process in that an LOP may be issued without publishing a public notice for each project, and without completing a detailed environmental assessment. The Corps' review, including inter-agency coordination, of each LOP application will ensure adverse impacts are avoided and minimized to the maximum extent practicable, adequate and appropriate compensatory mitigation occurs for unavoidable impacts to the aquatic ecosystem, and each project's proposed activities comply with established LOP permitting procedures. If the Corps determines that a project is ineligible, the applicant would have to seek authorization under a different Corps permitting mechanism or modify the project sufficiently to comply with the established LOP procedures.

OCTA M2 Freeway Program Projects: As previously noted, the OCTA M2 Freeway Program projects include capital transportation projects expected to be constructed during the next 15-20 years as described in the TIP (as noted, the discharges of fill material into waters of the U.S. associated with projects H and J already received separate Corps authorization pursuant to the NWP program and are under construction or have been completed). A list of the OCTA M2 Freeway Program projects along with a brief summary of the project description is enclosed (Enclosure 4). For all projects, specific transportation-related improvements are subject to approved plans developed in cooperation with state and local jurisdictions and affected communities. Each of the proposed M2 LOP projects must demonstrate compliance with the California Environmental Quality Act (CEQA).

Project Activities: Proposed project activities associated with the OCTA M2 Freeway Program projects vary depending on an individual project's needs and design; typical activities that are expected to be required at the M2 LOP project sites include:

- Adding/widening/realigning lanes and/or shoulders/closed medians
- Widening bridges/placement or extension of piers
- Bridge replacement or retrofit
- Bank stabilization
- Replacement, extension, and/or installation of culverts and/or drainage structures
- Vertical and/or curve realignment (safety)
- New construction or reconstruction of interchange(s)
- Installation/rehabilitation of landscaping material and associated irrigation
- Installation/rehabilitation/upgrade of right-of-way fence
- Installation of energy-dissipation structures
- Construction of retaining walls or sound walls

Materials to be Discharged into Waters of the U.S.: Detailed information regarding fill materials to be discharged into waters of the U.S., including estimated volumes, would be provided in each project's LOP application. In general, materials proposed for discharge into waters of the U.S. would be expected to include one or more of the following:

- Clean earthen fill material (backfill)
- Portland cement concrete or asphalt concrete
- Aggregate base material
- Rock slope protection (inert)
- Galvanized corrugated metal pipe(s)
- Rock-filled basket gabion
- Filter fabric
- Geotextile
- Prefabricated concrete box/arch culvert (or bridge footing/abutment, etc.)

No toxic or hazardous materials would be discharged into the aquatic ecosystem.

Potential Impacts to Jurisdictional Waters of the U.S.: The enclosed table (Enclosure 5) provides an estimate of the potential permanent impacts to jurisdictional waters of the U.S. (WOUS) by aquatic feature. These features include Named Earthen Features, Unnamed Earthen Ditches, Earthen Detention Basins, Named Concrete Channels, and Unnamed Concrete Features. This table also provides the feature name, project and route, impact figure reference, watersheds (Hydrologic Unit Code [HUC] 10 and HUC 8), channel description, existing structure description, anticipated proposed activity, estimated impacts by jurisdictional type in acres and linear feet, estimated width at impact location, feature width, potential impact minimization measures, and proposed compensatory mitigation for unavoidable impacts to waters of the U.S. Enclosure 6: Table 3 (see enclosure) provides an estimate of the potential temporary impacts to jurisdictional WOUS by aquatic feature and includes the feature name, project and route, impact figure reference, watersheds (HUC 10 and HUC 8), channel description, existing structure description, proposed activity, temporary impact description, and estimated impacts by jurisdictional type in acres and linear feet.

The impact analysis is provided by category of aquatic features per the above-cited naming convention. All impacts to concrete features are considered temporary with respect to WOUS. These tables provide the most current and conservative calculations (worst-case scenario) of impacts

associated with the M2 LOP capital projects. In total, less than 3 acres of WOUS are expected to be permanently impacted/lost and approximately 14.4 acres of waters of the U.S. are expected to be temporarily impacted as a result of constructing these freeway improvements (Projects H and J permanently impacted approximately 0.71 acre and temporarily impacted approximately 6.1 acres of WOUS). Many of these projects are not scheduled to be built for many years, and the planning and design are in early stages. It is anticipated that as project designs are further refined, the impact footprint for a given project will also be refined and reduced as resource avoidance and impact minimization are incorporated.

Description of Avoidance and Minimization Measures: Pursuant to the Section 404(b)(1) Guidelines and the 2008 Mitigation Rule, the Corps evaluates proposed discharges of dredged or fill material with the primary intent of avoiding and minimizing impacts to the aquatic ecosystem to the maximum extent practicable. The last step in the evaluation process focuses on determining adequate and appropriate compensatory mitigation for unavoidable impacts to waters of the U.S.
Table 2 lists waters of the U.S. avoidance and minimization measures by impacted aquatic feature associated with constructing the proposed M2 LOP projects. Additional avoidance and minimization measures that may apply to work in waters of the U.S. associated with constructing the M2 Freeway Program projects are summarized below. A full suite of avoidance and minimization measures covering biological resources and water quality have been developed for the Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP) at http://www.octa.net/Measure-M/Environmental/Freeway-Mitigation/Conservation-Plan/.

As discussed further on page 23 of this notice, compensatory mitigation will be implemented to offset unavoidable impacts to waters of the U.S. associated with constructing OCTA's M2 Freeway Program projects. Implementing compensatory mitigation would have its own impacts to the aquatic ecosystem that the co-applicants and the Corps would seek to minimize. The M2 compensatory mitigation project avoidance and minimization measures will be defined in each Habitat Mitigation and Monitoring Plan (HMMP) and these measures shall be approved by the Corps, United State Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), as well as the State Water Resources Control Board in coordination with the Regional Water Quality Control Boards.

OCTA has proposed the following measures to avoid and minimize impacts on waters of the U.S. at all sites which may include, but not be limited to:

- **Delineation of Environmentally Sensitive Areas.** Prior to clearing or construction, highly visible barriers (such as orange construction fencing) will be installed around areas adjacent to the project footprint to designate environmentally sensitive areas to be protected/avoided. No project activity of any type will be permitted within these environmentally sensitive areas. In addition, heavy equipment, including motor vehicles, will not be allowed to operate within the environmentally sensitive areas. All construction equipment will be operated in a manner so as to prevent accidental damage to environmentally sensitive areas. No structure of any kind, or incidental storage of equipment or supplies, will be allowed within these protected zones. Silt fence barriers will be installed at the environmentally sensitive area boundary to prevent accidental deposition of fill material in areas where vegetation is immediately adjacent to planned grading activities**.**

- **Onsite Training.** When in or near natural habitat areas, all personnel involved in the onsite project construction will be required to participate in a preconstruction training program to understand the avoidance and minimization obligations being implemented on the project.

- **Invasive Species Control.** In compliance with the Executive Order on Invasive Species, EO 13112, and subsequent guidance from the Federal Highway Administration, landscaping and erosion

control and any other use of plants included in the project will not use species listed as noxious weeds in either the state noxious weed list or the current list(s) from the California Invasive Plant Council (Cal-IPC 2006, 2007**{** TC "Cal-IPC 2006, Cal-IPC 2007 " \f C \l "1" **}**) or as updated at the time of project initiation.

Invasive species will be removed from the project work area and controlled during construction. The use of known invasive plant species (i.e., plant species listed in California Invasive Plant Council's [Cal-IPC's**{** TC "California Invasive Plant Council [Cal-IPC" \f A \l "1" **}**] California Invasive Plant Inventory with a High or Moderate rating) will be prohibited for construction, revegetation, and landscaping activities. Project measures will be included to ensure invasive plant material is not spread from the project site to other areas by disposal offsite or by tracking seed on equipment, clothing, and/or shoes. Equipment/material imported from an area of invasive plants must be identified and measures implemented to prevent importation and spreading of nonnative plant material within the project site. All construction equipment will be cleaned with water to remove dirt, seeds, vegetative material, or other debris that could contain or hold seeds of noxious weeds before arriving to and leaving the project site. Eradication strategies (i.e., weed abatement programs) will be employed should an invasion occur during construction.

- **Removal of Temporary Fills and Native Revegetation of Temporary Impact Areas**. OCTA and Caltrans revegetation plans would follow Caltrans' landscape architecture guidelines and requirements. Upon project completion, all temporary fills shall be removed and all temporarily affected stream areas shall be re-contoured to pre-construction conditions. To reduce the potential for erosion and facilitate the recovery of the affected areas, the Permittee shall hydroseed and re-vegetate the disturbed portions of the earthen stream banks and floodplain, as appropriate, with native, non-invasive species. Woody riparian vegetation shall be revegetated with container plantings unless other methods are coordinated and approved by the Corps Regulatory Division. The Permittee shall submit the proposed planting palette and planting plan for review and approval by the Corps Regulatory Division prior to initiation of construction. The Permittee shall ensure the planted/hydroseeded areas are maintained and monitored for a period of two years after completing the native planting/seeding activities, such that less than 10 percent (absolute cover) of the areas disturbed by the project are vegetated by non-native and invasive plant species. For each project aquatic feature, the Permittee shall submit a memorandum by December 15th after completion of the two-year maintenance and monitoring period. The memo shall indicate for each project crossing/aquatic impact area, when temporary construction areas were re-contoured to pre-construction conditions, when native planting/seeding was completed, the species and percent cover (absolute) of invasive and/or non-invasive plant species that occur onsite each year prior to treatment, and when and how many/the extent of invasive and/or non-invasive plant species that were removed that year.

Implementation of the native revegetation of temporary impact areas shall commence immediately following completion of construction or, with written approval from the Corps Regulatory Division, at the beginning of the next growing season after project completion. A delay in native planting to take advantage of the appropriate season should be considered in the application phase to use established/authorized LOP procedures in order for appropriate mitigation to be considered by the Corps Regulatory Division. An increase in delay after the project-specific LOP has been issued may require a modification to the mitigation requirements and should be coordinated with Corps Regulatory Division to avoid non-compliance action. If native re-vegetation cannot start due to seasonal conflicts (e.g., impacts occurring in late fall/early winter shall not be re-vegetated until seasonal conditions are conducive to re-vegetation), exposed earth surfaces shall be stabilized immediately with jute-netting, straw matting, or other applicable best management practice to minimize any erosion from wind or water. Native revegetation of temporary impact areas shall be

completed within 12 months of initial occurrence of project impacts to Corps jurisdictional waters of the U.S. Any temporal loss of riparian/wetland/stream function caused by delays beyond the 12 months in implementation of native revegetation of temporary impact areas shall be mitigated in-kind through riparian/wetland/stream establishment, re-establishment, rehabilitation, and/or enhancement at a ratio as determined by the Corps Regulatory Division in accordance with the latest Standard Operating Procedure for Determination of Mitigation Ratios (i.e., current instructions require that the ratio is increased 0.05:1 for every month of delay). In the event that the Construction Lead (OCTA or Caltrans) is wholly or partly prevented from restoring temporary impact areas within the above time frame (causing temporal losses due to delays) because of unforeseeable circumstances or causes beyond reasonable control, and without the fault or negligence of the Construction Lead, including but not limited to natural disasters (e.g., earthquakes, flooding, etc.), the OCTA/Caltrans may be excused by such unforeseeable cause(s) from the additional 0.05:1 per each month of delay requirement with Corps Regulatory Division approval. Any on-site re-vegetation deemed infeasible as a result of such unforeseeable causes(s) will be considered a permanent impact, and will be mitigated accordingly.

If the Corps determines native revegetation efforts are not resulting in successful recovery of comparable, pre-project aquatic resource functions and services at any temporary impact area, the Corps may require OCTA and/or Caltrans to implement additional revegetation activities in the treated area, and/or implement additional mitigation activities outside the treated area to ensure aquatic resource losses are minimized or offset adequately.

Preliminary Review of Selected Factors

EIS Determination- A preliminary determination has been made that an environmental impact statement (EIS) is not required for the proposed work in WOUS under the OCTA M2 Freeway Program projects. The work is proposed to occur along existing freeway facilities and would generally occur within existing rights of way, and the aquatic resources near these facilities have experienced some level of degradation to their functions and services over time. Relatively minor impacts to the aquatic ecosystem are expected to occur at these locations associated with constructing the M2 LOP projects; these impacts are expected to be less than significant individually and cumulatively, given their proximity to these facilities and the nature and scope of the work at the project sites. In fact, as noted, many of these projects could qualify for authorization under the Corps' NWP program (as projects H and J have), which covers similar types of activities (including linear transportation projects) having no more than minimal impacts on the aquatic ecosystem on an individual and cumulative basis. The co-applicants and the Corps recognize, however, the benefits of evaluating the entire program on a holistic basis; in terms of evaluating the impacts to the aquatic ecosystem associated with constructing these transportation improvements as well as in evaluating the adequacy and appropriateness of the compensatory mitigation options that could address the unavoidable impacts to waters of the U.S. from these individual projects.

Water Quality- The Corps, OCTA, and Caltrans are coordinating with the California State Water Resources Control Board to certify these LOP procedures for compliance with Clean Water Act section 401 water quality certification. Until such time, an individual 401 section Water Quality Certification must be obtained or waived (see 33 CFR section 330.4(c)), for individual projects (each individual LOP application to use established/authorized LOP procedures for the M2 Freeway Program), through the applicable Regional Water Quality Control Board (RWQCB).

Coastal Zone Management- For those projects in or affecting the coastal zone, the Federal Coastal Zone Management Act requires that prior to issuing the Corps authorization for the project, OCTA and Caltrans must obtain concurrence from the California Coastal Commission that the project

is consistent with the State's Coastal Zone Management Plan when requesting an LOP. The M2 LOP projects are located outside the coastal zone, and preliminary review indicates that none of them, including the compensatory mitigation options being considered currently to address unavoidable aquatic resource impacts, would affect coastal zone resources; therefore, concurrence from the California Coastal Commission is not expected to be necessary.

Essential Fish Habitat- The Corps Regulatory Division's preliminary determination is that the proposed activities would not adversely affect Essential Fish Habitat (EFH). All program activities, including the compensatory mitigation options being considered currently to address unavoidable aquatic resource impact, would occur well outside of areas subject to tidal influence. Therefore, consultation under section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) is not expected to be required.

Cultural Resources- In evaluating whether a given M2 LOP project would comply with the established LOP procedures, the Corps would review each project's proposed activities for compliance with section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, including tribal coordination as appropriate. Currently, the M2 LOP projects lack sufficient technical details to accurately identify each project's Area of Potential Effects (APE); as noted, some of these projects are several years from planned construction (see Enclosure 4), and the planning and designs are in preliminary stages. Caltrans, as assigned by Federal Highway Association (FHWA), under the National Environmental Protection Act (NEPA) Assignment Memorandum of Understanding, for applicable projects, would also be responsible for compliance with 36 CFR Part 800 when federal funding is involved. Where applicable, compliance with 36 CFR Part 800 will be demonstrated in accordance with the amended Programmatic Agreement (PA) Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer (SHPO), the Corps (invited signatory), and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it pertains to the Administration of the Federal-Aid Highway Program in California (http://www.dot.ca.gov/ser/vol2/106pa_14.pdf). Consistent with the PA, the Corps may use studies, findings, and determinations previously completed by Caltrans to document our own findings. If the PA is not applicable, the OCTA and/or Caltrans will provide the cultural information to the Corps and coordination with the SHPO will be completed by the Corps in accordance with section 106 of the NHPA (36 CFR Part 800).

In cases where the Corps determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places (NRHP), the activity is not authorized, until the requirements of section 106 of the NHPA have been satisfied.

Endangered Species- The Corps Regulatory Division will review each individual project for compliance with the Endangered Species Act (ESA) as each project becomes active and an LOP application to use established/authorized LOP procedures for that project is submitted to us for review and inter-agency coordination. No activity is authorized that is likely to jeopardize the continued existence of a federally listed as threatened or endangered species or a species proposed for such designation, as identified under the ESA, or which will destroy or adversely modify designated critical habitat of such species. OCTA and/or Caltrans shall not begin work on the proposed activity until notified by the Corps Regulatory Division that the requirements of the ESA have been satisfied and that the activity has been determined to be authorized pursuant to the established LOP procedures.

Caltrans, as assigned by FHWA, under the NEPA Assignment Memorandum of Understanding, for applicable projects, would also be responsible for compliance with section 7 of the ESA, when federal funding is involved. Where applicable, Caltrans as the lead federal agency shall follow their own

procedures for complying with the requirement of the ESA. Caltrans must provide the Corps Regulatory Division with the appropriate documentation to demonstrate compliance with those requirements.

OCTA is coordinating with the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) to complete a Natural Community Conservation Plan (NCCP)/Habitat Conservation Plan (HCP) for the M2 Freeway Program projects. If the NCCP/HCP is completed and OCTA receives an ESA section 10 permit from the USFWS for impacts to covered species from covered projects, consultation between the Corps Regulatory Division or Caltrans and USFWS would still occur pursuant to section 7 of the ESA prior to project initiation. Under this scenario, protocol or focused surveys for listed species would be conducted as outlined in the NCCP/HCP, and the Corps Regulatory Division or Caltrans would initiate a streamlined section 7 consultation process with the USFWS for the each of the M2 LOP projects. For projects that "may affect" federally listed as threatened or endangered species not covered under the NCCP/HCP, the Corps Regulatory Division or Caltrans would initiate formal or informal section 7 consultation on an individual project basis. Corps authorization of an activity does not authorize the "take" of a federally listed as threatened or endangered species or the adverse modification of critical habitat for federally listed species as defined under the ESA. In the absence of separate authorization (e.g., an ESA section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the USFWS or the NMFS, lethal and non-lethal "take" of protected species is in violation of the ESA.

For projects that may affect species not covered under the HCP, the USACE, or Caltrans as assigned by FHWA, under the NEPA Assignment Memorandum of Understanding, for applicable projects,, would initiate a formal or informal Section 7 consultation on an individual project basis. We anticipate that all of the activities would be covered under the HCP, when approved.

Air Quality- All of the M2 freeway projects were analyzed as part of the Conformity Determination for the Southern California Associated Governments (SCAG's) 2008 Regional Transportation Plan (RTP) and included in the Regional Transportation Improvement Program (RTIP). Based on a letter issued by the Federal Transit Administration (FTA) and Federal Highway Administration (FHWA), dated June 5, 2008, the 2008 SCAG RTP and 2006 RTIP met all air quality conformity requirements. Specifically, the 2008 RTP and 2006 RTIP conformed to the applicable state implementation plan (SIP) in accordance with the provisions of 40 CFR Parts 51 and 93. FTA/FHWA made similar determinations for subsequent RTP and RTIP amendments.

No activity is authorized that causes or contributes to any new violation of national ambient air quality standards, increases the frequency or severity of any existing violation of such standards, or delays timely attainment of any such standard or interim emission reductions, as described in the applicable California SIP for the South Coast Air Basin. OCTA and Caltrans are responsible in complying with applicable local, state, and federal air quality standards. OCTA and Caltrans shall provide documentation in each project's application for a Corps permit demonstrating that: (1) the project's emissions are accounted for in emissions budgets in the currently approved SIP; (2) the project's emissions would be below the current de minimis thresholds for any criteria pollutants or their precursors; or (3) a conformity determination for the project's emissions has been completed finding they conform with the approved SIP.

Public Hearing- Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearing shall state with particularity the reasons for holding a public hearing.

It should be noted that OCTA held two public meetings to solicit comments on the draft NCCP/HCP for the M2 Freeway Program, on November 20, 2014, at the OCTA building, and on December 3, 2014, at Rancho Santa Margarita City Hall. OCTA also publicized the release of the NCCP/HCP through various communications tools including the following: electronic-blast (e-blast), OCTA's On the Move Blog (http://blog.octa.net/), OCTA's Website (http://www.octa.net/default.aspx), and a press release. The Notice of Availability flier was mailed to 1,200 stakeholders and about 500 of the flyers were distributed, by hand, to homes and businesses in the Trabuco Canyon and Silverado Canyon areas.

Proposed Activity

The proposed activity is to establish an alternative permitting process, specifically Clean Water Act section 404 LOP procedures, to address/authorize the discharges of dredged or fill material into waters of the U.S. associated with constructing OCTA's M2 LOP projects, including implementation of compensatory mitigation for unavoidable impacts to waters of the U.S. The OCTA M2 Freeway Program projects consist of several linear transportation projects along existing freeways in Orange County as described in the TIP.

Activities associated with these projects include construction, expansion, modification, or other improvement of linear transportation projects that would discharge dredged or fill material into waters of the U.S. and therefore, require authorization from the Corps pursuant to section 404 of the Clean Water Act (as previously noted, discharges of fill into waters of the U.S. associated with two program projects, H and J, separately received NWP program authorization from the Corps). Any stream channel or other aquatic habitat modifications would be limited to the minimum necessary to construct or to protect the linear transportation project against future scour/erosion. Temporary structures, fills, and work necessary to construct the linear transportation projects would also be authorized by the proposed LOP procedures. Moreover, the LOP procedures would also require and authorize compensatory mitigation for unavoidable impacts to waters of the U.S. associated with construction of the OCTA M2 LOP projects. As noted, the OCTA intends to implement compensatory mitigation activities for unavoidable transportation-related impacts to waters of the U.S. as early as possible once LOP procedures are established, potentially before transportation project construction is initiated; this would minimize temporal losses of aquatic functions that can occur if compensatory mitigation is not implemented in advance of or concurrent with project impacts to waters of the U.S. (33 C.F.R. 332.3(m)). The compensatory mitigation being implemented by OCTA could be utilized for the M2 LOP projects whether or not OCTA or Caltrans is the Construction Lead.

List of Categories of Activities Addressed by These LOP Procedures- The proposed LOP procedures would be established specifically for OCTA's M2 LOP projects, including compensatory mitigation activities to offset unavoidable impacts to waters of the U.S. If any such LOP procedures are established, each individual project still requires submittal of an LOP application to the Corps Regulatory Division to determine whether it is eligible for LOP authorization under the established LOP procedures. The Corps Regulatory Division would also notify other federal and state agencies of the submitted application in determining a given project's eligibility; and if determined to be eligible as meeting all LOP procedure requirements, the Corps would issue an LOP authorizing that the project's impacts to waters of the U.S. are authorized under the established LOP procedures. Each LOP application for an LOP must include information clearly demonstrating that impacts to aquatic resources have been and will be avoided and minimized to the maximum extent practicable, a mitigation statement associated with an approved HMMP or, in the case of a preservation site, a Long Term Resource Management Plan (LTRMP) on file with the Corps, if available, or a draft mitigation plan/HMMP/LTRMP for Corps Regulatory Division approval, that once implemented in full, would be

expected to offset the aquatic resource losses and result in a net increase in aquatic resource functions. Pending further environmental review, the Corps reserves the use of its discretionary authority to determine that an activity is authorized under established LOP procedures, that an activity is authorized by established LOP procedures with the inclusion of additional special conditions, or that an activity is not authorized under established LOP procedures and will require authorization under another Corps permit type. A preliminary review of the anticipated impacts indicates the proposed LOP projects would result in minor adverse environmental impacts and are expected to comply with the LOP procedures.

The proposed LOP procedures include pre-application requirements, application to use established LOP procedures requirements, processing procedures, and the general conditions, as described below. A flow chart to support an initial decision of whether a project could be eligible for authorization under the LOP procedures is provided (Enclosure 7: Figure 3).

A. Before Submitting an Application to Use the Established LOP Procedures

Requirements and procedures for Pre-Application Coordination are summarized as follows:

1. Pre-application coordination is required for proposed projects occurring within the San Diego Creek SAMP or San Juan Creek/Western San Mateo SAMP areas or for projects that involve the conversion of a soft-bottom channel to a rip rap or concrete-lined channel within Santiago Creek, Oso Creek, Aliso Creek, Santa Ana River, Tonner Canyon, or San Diego Creek.

2. In addition to the Corps, pre-application coordination may involve the CDFW, the SWRCB and/or the applicable RWQCB, the USFWS, and the U.S. Environmental Protection Agency (EPA).

3. For the pre-application meetings, the applicant may meet with the agencies separately or in small groups, consult by telephone, or schedule a pre-application meeting to be held at the Corps' Los Angeles District office. A written record of the proceedings must be provided afterwards to the Corps Regulatory Division, documenting substantive issues discussed, agency recommendations, and any pertinent conclusions.

4. In preparation for the pre-application meeting, the following information should be provided to the participating agencies at least two weeks prior to the meeting:

    a. A draft detailed written description (including area(s), volume(s) and types of material(s), dimensions)) of activity to be permitted by the Corps;
    b. A delineation of waters of the U.S. within the project area. The preliminary jurisdictional determination for the M2 Freeway Program was issued by the Corps on December 4, 2012. This preliminary jurisdictional determination was used for discussion of avoidance, minimization, and compensatory mitigation opportunities during the pre-application process. Although future delineations are possible as specified herein, the preliminary jurisdictional determination issued on December 4, 2012 (and September 17, 2013 updates) can be used as the baseline for all subsequent discussions on avoidance, minimization, and compensatory mitigation. Future projects proposing to impact waters of the U.S. need to have only a re-verification of the 2012 jurisdictional delineation (and September 17, 2013 updates). Submittals for the re-verification include: a memo indicating whether any changes to the geographic extent of waters of the U.S. have occurred since the preliminary jurisdictional determination was issued on December 4, 2012 (and September 17, 2013

updates), photos of each aquatic feature, and a new preliminary determination form specific to each application to use LOP procedures. If changes to the geographic extent of waters of the U.S. have occurred since the preliminary jurisdictional determination was issued on December 4, 2012 (and September 17, 2013 updates), the memo should also include any supporting information such as wetland delineation forms to re-delineate the extent of wetland waters of the U.S., ordinary high water mark forms to re-delineate the extent of waters of the U.S., photos of each aquatic feature, and wetland delineation maps indicating the extent of wetland and non-wetland waters of the U.S. overlaid onto an aerial photograph. If the delineation has changed from the 2012 delineation (and September 17, 2013 updates), new GIS data shall be submitted to the Corps Regulatory Division;

c. A site location and plan view of the proposed project areas and acreage and linear feet of stream(s) and any other aquatic resource types to be impacted showing permanent losses and temporary impacts to waters of the U.S.;
d. A draft statement addressing the Section 404(b)(1) Guidelines[2];
e. A draft mitigation plan/HMMP/LTRMP or mitigation statement relating the project to an approved HMMP or LTRMP, if applicable, if unavoidable impacts would occur to riparian habitat and/or wetlands (note that temporary impacts to waters of the U.S., such as those occurring at the concrete-lined channel locations, will not require compensatory mitigation; an exception to this is if the Corps determines there is an unacceptable delay in native re-vegetation and/or unsatisfactory recovery of aquatic habitat functions and services of temporarily impacted areas, unless unforeseeable circumstances or causes beyond reasonable control, and without the fault or negligence of the Construction Lead [OCTA or Caltrans], including but not limited to natural disasters [e.g., earthquakes, flooding, etc.]);
f. When appropriate, a cultural resources inventory and results from an endangered or threatened species (federally listed, including designated/proposed critical habitat) survey (pursuant to the M2 NCCP/HCP or covered species and covered activities), for the project area; and
g. If Section 408 permission/approval is needed, the applicant must provide the Section 408 permission/approval within 30 days of the LOP application submittal date or the LOP application will be withdrawn by the Corps.

The Corps will make an initial determination as to whether the project may qualify for the LOP procedures based on a preliminary determination that the project meets certain requirements, including compliance with the CWA Section 404(b)(1) Guidelines.

B. LOP Application Submittal

The following informational items 1-9 are needed for a complete LOP application per the proposed LOP procedures. Corps District and South Pacific Division standards for submitting maps and

[2] The applicant must provide information documenting the evaluation of alternatives to the proposed impacts to aquatic resources. The basic premise of the section 404 Clean Water Act program is that no discharge of dredged or fill material may be permitted if: (1) a practicable alternative exists that is less damaging to the aquatic environment (and an alternative that would not impact a special aquatic site, such as wetland, is presumed to be less damaging to the aquatic environment, unless rebutted), or (2) the nation's waters would be significantly degraded. In other words, when applying for a Corps permit, the applicant must first show that the project has been designed to avoid impacts to wetlands, streams, and other aquatic resources to the maximum extent practicable. The applicant must also demonstrate that potential impacts have been minimized and that compensation will be provided for remaining unavoidable impacts. Justification why less damaging alternatives are not practicable must be provided.

drawings (http://www.spl.usace.army.mil/Portals/17/docs/publicnotices/SPD-RG_map-drawing-standards_final_20120806v3.pdf) shall apply to the LOP application and related submittals.

1. A completed Department of the Army application form (Eng Form 4345).

2. A complete project description, which includes the following information:

    a. Pre-project photographs of the project site and each potentially jurisdictional WoUS;
    b. A site location map and engineering layouts and cross sections of the project activity on sheets no larger than 11" " x 17";
    c. Scale plan views showing WoUS to be permanently and temporarily impacted juxtaposed on the project construction plans overlaid on aerials and on sheets no larger than 11" " x 17";
    d. Location coordinates: latitude/longitude or UTM;
    e. Volume, type, and source of material(s) to be placed into waters of the U.S.;
    f. Total area of waters of the U.S. and linear feet of stream(s) to be directly and indirectly affected;
    g. A delineation of waters of the U.S. located in the project area including a wetland delineation map on sheets no larger than 11" x 17", if not provided during pre-application. The preliminary jurisdictional determination for the M2 Freeway Program was issued by the Corps on December 4, 2012. This preliminary jurisdictional determination was used for discussion of avoidance, minimization, and compensatory mitigation opportunities during the pre-application process. Although future delineations are possible as specified herein, the preliminary jurisdictional determination issued on December 4, 2012 (and September 17, 2013 updates) can be used as the baseline for all subsequent discussions on avoidance, minimization, and compensatory mitigation. Future projects proposing to impact waters of the U.S. need to have only a re-verification of the 2012 jurisdictional delineation (and September 17, 2013 updates). Submittals for the re-verification include: a memo indicating whether any changes to the geographic extent of waters of the U.S. have occurred since the preliminary jurisdictional determination was issued on December 4, 2012 (and September 17, 2013 updates), photos of each aquatic feature, and a new preliminary determination form specific to each application to use LOP procedures. If changes to the geographic extent of waters of the U.S. have occurred since the preliminary jurisdictional determination was issued on December 4, 2012 (and September 17, 2013 updates), the memo should also include any supporting information such as wetland delineation forms to re-delineate the extent of wetland waters of the U.S., ordinary high water mark forms to re-delineate the extent of waters of the U.S., photos of each aquatic feature, and wetland delineation maps indicating the extent of wetland and non-wetland waters of the U.S. overlaid onto an aerial photograph. If the delineation has changed from the 2012 delineation (and September 17, 2013 updates), new GIS data should be submitted;
    h. A description of habitats to be impacted, including plant communities, located in the project area;
    i. A description of methods to avoid, minimize, and compensate for adverse impacts to aquatic functions and water quality at the project site, including best management practices proposed to use and maintain during project implementation to control siltation and erosion;
    j. Any other information pertinent to the wetlands, stream(s), or other waterbody(ies) involved; and

k. Proposed project schedule, including approximate start and end dates (month and year) when impacts to waters of the U.S., would occur approximate dates to restore all temporary impact areas to pre-construction elevations and remove temporary fills, and approximate dates to start native revegetation/hydroseeding of temporarily disturbed areas, if appropriate.

3. A discussion of how each participating agency comment/concern provided during pre-application meeting(s) was addressed, if applicable.

4. Air quality analysis or documentation demonstrating that: (1) the project's emissions are accounted for in the emissions budgets in the currently approved SIP; (2) the project's emissions would be below the current de minimis thresholds for any criteria pollutants or their precursors; or (3) a conformity determination for the project's emissions has been completed finding they conform with the approved SIP.

5. A statement addressing the Section 404(b)(1) alternatives analysis.

6. A statement explaining how avoidance and minimization of dredged or fill material discharges into jurisdictional waters were achieved on the project site.

7. A compensatory mitigation plan/HMMP/LTRMP consistent with the mitigation framework (see Section E below) and the *Final 2015 Regional Compensatory Mitigation and Monitoring Guidelines for South Pacific Division USACE*: (http://www.spd.usace.army.mil/Portals/13/docs/regulatory/mitigation/MitMon.pdf) to address any unavoidable impacts to jurisdictional waters and the program goal of no net loss of wetlands. Alternatively, if an HMMP or LTRMP has been previously approved by the Corps, a mitigation statement may be provided.

8. Local approvals or other evidence that the project has been reviewed by the appropriate local governmental body and has been found to be consistent with state and local land use plans and policies, particularly state and local wetland policies.

9. Appropriate surveys, inventories, or reports (pursuant to the NCCP/HCP for covered species and covered activities) that will allow the Corps to make a determination of the effect of the proposed project (and if necessary consult with the USFWS) pursuant to the federal ESA or evidence of incidental take authorizations provided under ESA.

10. Evidence of compliance with section 106 of the NHPA (through submittal of an approved Caltrans Historic Property Survey Report) or submittal of a cultural resources study with historic record searches and pedestrian surveys not more than 5 years old.

11. The decision on a Department of the Army permit application pursuant to section 404 of the Clean Water Act cannot be rendered prior to the decision on a 33 U.S.C Section 408 request. Where applicable, provide Section 408 permission/approval. If Section 408 permission/approval is needed, the applicant must provide the Section 408 permission/approval within 30 days of the LOP application submittal date or the LOP application will be withdrawn by the Corps.

C. Application Processing Procedures

When the applicant has compiled the information required for a complete LOP application, these following steps would occur:

1. Caltrans and/or OCTA will provide the Corps Regulatory Division and the other federal and state review agencies (EPA, USFWS, CDFW, SWRCB, RWQCB, SHPO) complete LOP applications. The Corps Regulatory Division will review the Caltrans and/or OCTA application and assign an action ID number (OMBIL Regulatory Module/ORM).

2. Within fifteen (15) calendar days of receipt of an LOP application, the Corps Regulatory Division will determine if the LOP application is complete. If an LOP application is incomplete, the Corps Regulatory Division will notify Caltrans and/or OCTA of the needed information items and Caltrans and/or OCTA will be required to submit that information.

3. Within fifteen (15) calendar days of receiving a complete LOP application, the Corps Regulatory Division will submit materials to the other federal and state review agencies (i.e., the CDFW, applicable RWQCB, SWRCB, USFWS, EPA, and SHPO) via email and request the agencies provide comments. The agencies (except for the SHPO) will provide comments to the Corps Regulatory Division within 21 calendar days. The SHPO will provide comments within 30 calendar days. "No objection" comments may be provided by telephone, but substantive comments shall be provided and confirmed by email, FAX, or letter. When the LOP application notification is transmitted to the other federal and state review resource agencies, the Corps Regulatory Division will consider the following:

    a. Conformity of the proposed project with the established LOP Procedures;
    b. Accuracy of the jurisdictional delineation and the resource assessments;
    c. Avoidance and minimization of impacts to aquatic resources to the maximum extent practicable;
    d. Consistency of the proposed project-specific compensatory mitigation with the mitigation framework and the *Final 2015 Regional Compensatory Mitigation and Monitoring Guidelines for South Pacific Division USACE* and any updates thereto: (http://www.spd.usace.army.mil/Portals/13/docs/regulatory/mitigation/MitMon.pdf);
    e. Whether federally listed species issues have been resolved in a manner consistent with the OCTA M2 Freeway Program NCCP/HCP program for covered species and/or resolution of ESA section 7 for non-covered species;
    f. Resolution or status of compliance with section 106 of the NHPA;
    g. Resolution or status of the CWA section 401 water quality certification; and
    h. Resolution or status of the CWA section 408 permission.

The Corps Regulatory Division will review the comments received and make a final determination within 45 calendar days of receiving the complete LOP application, unless consultation under section 7 of ESA or section 106 of NHPA is required, or unless a section 408 permit is necessary which would likely extend the processing time for a final decision. If a section 408 permit is required, it must be provided to the Corps Regulatory Division within 30 days of submitting a complete application or the application would be withdrawn. After all the comments are received from the notified federal and state agencies, the Corps Regulatory Division will perform a final evaluation of the project. Any problems identified during the LOP application notification process to the federal and state review agencies will be resolved before an LOP is issued. If the project is consistent with items a. through h. above for LOP authorization, an LOP will be issued. If the project fails to meet the requirements for LOP, the Corps will notify OCTA and Caltrans of the need for review through a separate Corps permitting process (likely the Standard Individual Permit process).

D. General Conditions: Any activity authorized by an LOP must also meet the following general conditions:

1. *Avoidance and Minimization*. The Permittee must provide a written statement describing avoidance and minimization measures to be used and maintained during project construction to minimize discharges of fill material into jurisdictional waters at the project site to the maximum extent practicable.

2. *Ineligible Impacts*. Projects ineligible for LOP procedures include activities not evaluated for LOP procedures in accordance with the San Diego Creek SAMP and San Juan Creek/Western San Mateo SAMP, projects that substantially alter a previously established compensatory mitigation site, or projects that involve the conversion of a soft-bottom channel to a rip rap or concrete-lined channel within San Diego Creek, Peters Canyon Wash, Hicks Canyon Wash, Serrano Creek, Borrego Canyon Wash, San Juan Creek, Oso Creek, Arroyo Trabuco, Chiquita Creek, Canada Gobernadora, San Mateo Creek, Gabino Creek, and Cristianitos Creek. Those ineligible proposed projects must be evaluated by the Corps through a Standard Individual Permit process.

3. *Mitigation Policy.* The permit must comply with the mitigation framework (see Section E below), and the *Final 2015 Regional Compensatory Mitigation and Monitoring Guidelines for South Pacific Division USACE* and any updates thereto: (http://www.spd.usace.army.mil/Portals/13/docs/regulatory/mitigation/MitMon.pdf).

4. *Soil Erosion and Siltation Controls*. During project implementation, appropriate erosion and siltation controls such as siltation or turbidity curtains, sedimentation basins, and/or hay bales, or other means designed to minimize turbidity in the watercourse to prevent exceedances of background levels existing at the time of project implementation, shall be used and maintained in effective operating condition. Projects are exempted from implementing controls if site conditions preclude their use, or if site conditions are such that the proposed work would not increase turbidity levels above the background level existing at the time of the work. All exposed soil and other fills, as well as any work below the ordinary high water mark, must be stabilized at the earliest practicable date to preclude additional damage to the project area through erosion or siltation and no later than November of the year the work is conducted to avoid erosion from storm events.

5. *Equipment*. If personnel would not be subjected to additional, potentially hazardous conditions, heavy equipment working in or crossing wetlands must be placed on temporary construction mats (timber, steel, geotextile, rubber, etc.), or other measures must be taken to minimize soil disturbance such as using low-pressure equipment. Temporary construction mats shall be removed promptly after construction is completed.

6. *Suitable Material.* No discharge of dredged or fill material into jurisdictional waters may consist of unsuitable materials (e.g., trash, debris, car bodies, asphalt, etc.), and material discharged must be free from toxic pollutants in toxic amounts (see section 307 of the CWA).

7. *Management of Water Flows*. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. To the maximum extent practicable, the activity must provide for the retention of excess flows from the site and for the maintenance of surface flow rates from the site similar to pre-project conditions, while not increasing water flows from the

project site, relocating water, or redirecting water flow beyond pre-project conditions unless it benefits the aquatic environment (e.g., stream restoration activities).

8. *Removal of Temporary Fills and Native Revegetation of Temporary Impact Areas.* Any temporary fills must be removed in their entirety and the affected areas must be returned to their pre-construction conditions, including any native riparian and/or wetland vegetation, at the conclusion of the project. To reduce the potential for erosion and to facilitate the recovery of the temporarily affected areas, the Permittee shall hydroseed and re-vegetate the disturbed portions of the earthen stream banks and bottom and floodplain, as appropriate, with native, non-invasive species. Woody riparian vegetation shall be revegetated with container plantings unless other methods are coordinated with and approved by the Corps Regulatory Division. The Permittee shall submit the proposed native planting palette and planting plan for review and approval by the Corps Regulatory Division at least 30 days prior to initiation of construction. The Permittee shall ensure the affected areas (disturbed stream channel bottoms and banks and hydroseeded/re-planted areas) are maintained and monitored for a period of two years after completing the revegetation activities, such that less than 10 percent (absolute cover) of the areas disturbed by the project are vegetated by non-native and invasive plant species. For each project aquatic feature, the Permittee shall submit a memorandum by December 15th after completion of the two-year maintenance and monitoring period. The memo shall indicate for each project crossing/aquatic impact area, when temporary construction areas were re-contoured to pre-construction conditions, when native planting/seeding was completed, the species and percent cover (absolute) of invasive and/or non-invasive plant species that occur onsite each year prior to treatment, and when and how many/the extent of invasive and/or non-invasive plant species that were removed that year.

   Implementation of the native revegetation of temporary impact areas shall commence immediately following completion of construction or, with written approval from the Corps Regulatory Division, at the beginning of the next growing season after project completion. A delay in native planting to take advantage of the appropriate season should be considered in the application phase to use established LOP procedures in order for appropriate mitigation to be considered by the Corps Regulatory Division. An increase in delay after the LOP has been issued may require a modification to the mitigation requirements and should be coordinated with Corps Regulatory Division to avoid non-compliance action. If native re-vegetation cannot start due to seasonal conflicts (e.g., impacts occurring in late fall/early winter shall not be re-vegetated until seasonal conditions are conducive to re-vegetation), exposed earth surfaces shall be stabilized immediately with jute-netting, straw matting, or other applicable best management practice to minimize any erosion from wind or water. Native revegetation of temporary impact areas shall be completed within 12 months of initial occurrence of project impacts to Corps jurisdictional waters of the U.S. Any temporal loss of riparian/wetland/stream function caused by delays beyond the 12 months in implementation of native revegetation of temporary impact areas shall be mitigated in-kind through riparian/wetland/stream establishment, re-establishment, rehabilitation, and/or enhancement at a ratio as determined by the Corps Regulatory Division in accordance with the latest Standard Operating Procedure for Determination of Mitigation Ratios (i.e., current instructions require that the ratio is increased 0.05:1 for every month of delay). In the event that the Construction Lead (OCTA or Caltrans) is wholly or partly prevented from re-vegetating temporary impact areas within the above time frame (causing temporal losses due to delays) because of unforeseeable circumstances or causes beyond reasonable control, and without the fault or negligence of the Construction Lead, including but not limited to natural disasters (e.g., earthquakes, flooding, etc.), the OCTA/Caltrans may be excused by such unforeseeable cause(s) from the additional 0.05:1 per each month of delay requirement with Corps Regulatory Division approval. Any on-site native re-vegetation deemed infeasible as a

result of such unforeseeable causes(s) will be considered a permanent impact, and will be mitigated accordingly. Additional exotic species management is required within the SAMP areas to prevent the establishment of invasive exotic vegetation. (See Condition #13).

If the Corps determines native revegetation efforts are not resulting in successful recovery of comparable, pre-project aquatic resource functions and services at any temporary impact area, the Corps may require OCTA and/or Caltrans to implement additional native revegetation activities in the treated area, and/or implement additional mitigation activities outside the treated area to ensure aquatic resource losses are minimized or offset adequately.

9. *Preventive Measures*. Measures must be adopted to prevent potential pollutants from entering the on-site watercourse(s). Within the project area, construction materials, and debris, including fuels, oil, and other liquid substances shall be stored in a manner as to prevent any runoff from entering jurisdictional areas.

10. *Staging of Equipment*. Staging, storage, fueling, and maintenance of equipment must be located or occur sufficiently outside of all the water bodies so that any potential spilled materials will not be able to enter any waterway or other body of water.

11. *Fencing of Project Limits*. The Permittee shall clearly mark the limits of the workspace with flagging or similar means to ensure mechanized equipment does not enter preserved/avoided waters of the U.S. and riparian wetland/habitat areas shown on a project-specific figure attached to the LOP. Adverse impacts to waters of the U.S. beyond the Corps Regulatory Division-approved construction footprint are not authorized. Such impacts could result in permit suspension and revocation, administrative, civil, or criminal penalties, and/or substantial, additional, compensatory mitigation requirements.

12. *Avoidance of Breeding Season*. With regard to federally listed avian species, avoidance of breeding season requirements shall be as described in General Condition 19 below. For all other species, initial vegetation clearing in waters of the U.S. must occur between September 15 and March 15, which is outside the breeding season. Work in waters of the U.S. may occur during the breeding season between March 15 and September 15 if bird surveys indicate the absence of any nesting birds within a 50-foot radius.

13. *Exotic Species Management*. For projects within the SAMP areas, all giant reed (*Arundo donax*), salt cedar (*Tamarix spp*.), and castor bean (*Ricinus communis*) must be removed from the construction areas, and the Permittee shall ensure that the affected areas remain free from these invasive, non-native species for a period of five years following completion of the project.

14. *Site Inspections*. Corps personnel shall be allowed to inspect the site at any time during and immediately after project implementation. In addition, compliance inspections of all compensatory mitigation sites shall be allowed at any time.

15. *Posting of Conditions*. A copy of the LOP terms and conditions shall be included in all bid packages for the project and shall be available at the work site at all times during periods of work and must be presented upon request by any Corps or other agency personnel with a reasonable reason for making such a request.

16. *Post-Project Report*. Within 45 days of completion of impacts to waters of the U.S., as-built drawings with an overlay of waters of the U.S. that were impacted and avoided must be submitted to the Corps Regulatory Division. Post-project photographs, which document

compliance with permit conditions, must also be provided. Maps and drawing submitted to the Corps Regulatory Division must comply with the *Final Map and Drawing Standards for the South Pacific Division Regulatory Program*, dated August 6, 2012 (http://www.spl.usace.army.mil/Media/PublicNotices/tabid/1320/Article/477549/final-map-and-drawing-standards-for-the-south-pacific-division-regulatory-progr.aspx)

17. *Water Quality*. The California State Water Resource Control Board is expected to certify established LOP procedures for compliance with Clean Water Act Section 401 water quality certification. Until such time, an individual project-specific section 401 water quality certification must be obtained or waived (see 33 C.F.R. §330.4(c)) through the applicable Regional Water Quality Control Board.

18. *Coastal Zone Management*. The M2 LOP projects, including the compensatory mitigation site options currently being evaluated to address unavoidable impacts to waters of the U.S., are located outside the coastal zone and preliminary review indicates that they would not affect coastal zone resources, and therefore, would not need concurrence from the California Coastal Commission.

19. *Endangered Species*.

    a. OCTA is coordinating with the USFWS and CDFW to complete an NCCP/HCP for the M2 Freeway Program projects. If the NCCP/HCP is completed and OCTA receives an ESA section 10 permit from the USFWS for impacts to covered species from covered projects, consultation between the Corps Regulatory Division or Caltrans and USFWS would still occur pursuant to section 7 of the ESA prior to project initiation. Under this scenario, protocol or focused surveys for listed species would be conducted as outlined in the NCCP/HCP, and the Corps Regulatory Division or Caltrans would initiate a streamlined section 7 consultation process with the USFWS for the each of the M2 Freeway Program projects. For projects that "may affect" federally listed as threatened or endangered species not covered under the NCCP/HCP, the Corps Regulatory Division or Caltrans would initiate formal or informal section 7 consultation on an individual project basis.
    b. No activity is authorized that is likely to jeopardize the continued existence of a federally listed as threatened or endangered species or a species proposed for such designation, as identified under the ESA, or which will destroy or adversely modify the critical habitat of such species. OCTA and/or Caltrans shall not begin work on the activity until notified by the Corps Regulatory Division that the requirements of the ESA have been satisfied and that the activity is authorized.
    c. Where applicable, Caltrans, as assigned by Federal Highway Association (FHWA), under the National Environmental Protection Act (NEPA) Assignment Memorandum of Understanding, should follow their own procedures for complying with the requirements of the ESA. Caltrans must provide the Corps Regulatory Division with the appropriate documentation to demonstrate compliance with those requirements.
    d. OCTA and/or Caltrans shall notify the Corps Regulatory Division if any federally listed species or designated critical habitat (or proposed for such listing or designation) might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the Corps Regulatory Division that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that "may affect" federally listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the federally listed as endangered or threatened species that may be affected by the proposed work or that utilize the designated critical habitat that may be affected by

the proposed work. The Corps Regulatory Division will determine whether the proposed activity "may affect" or will have "no effect" on federally listed species and/or designated critical habitat, and will notify the OCTA and/or Caltrans of the Corps Regulatory Division's determination within 45 days of receipt of a complete LOP application/pre-construction notification. In cases where the OCTA and/or Caltrans has identified federally listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps Regulatory Division, the applicant shall not begin work until the Corps Regulatory Division has provided notification the proposed activities will have "no effect" on federally listed species or critical habitat, or until the LOP has been issued.

e. As a result of formal or informal consultation with the USFWS or NMFS, the Corps Regulatory Division may add species-specific regional endangered/threatened species conditions to the LOP.
f. Authorization of an activity by a Corps permit does not authorize the "take" of a federally listed as threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the USFWS or the NMFS, both lethal and non-lethal "takes" of protected species are in violation of the ESA. Information on the location of federally listed as threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. USFWS and NMFS or their World Wide Web pages at http://www.fws.gov/carlsbad/ and http://www.nmfs.noaa.gov/pr/species/esa/index.htm, respectively.

20. *Fish Passage*. For projects resulting in construction or replacement of stream crossings, the resulting structure must comply with National Oceanic and Atmospheric Administration (NOAA) Fisheries and CDFW requirements for fish passage.

21. *Historic Properties*.

a. In cases where the Corps Regulatory Division determines that the activity "may affect" properties listed, or eligible for listing, on the National Register of Historic Places (NRHP), the activity is not authorized, until the requirements of section 106 of the National Historic Preservation Act (NHPA) have been satisfied.
b. Where applicable, Caltrans, as assigned by FHWA under the NEPA Assignment Memorandum of Understanding, should follow their own procedures for complying with the requirements of section 106 of the NHPA. Caltrans must provide the Corps Regulatory Division with the appropriate documentation to demonstrate compliance with those requirements.
c. OCTA and/or Caltrans must submit with their application information on historic properties that might be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties listed, or eligible for listing, on the NRHP. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the SHPO or Tribal Historic Preservation Officer (THPO), as appropriate, and the NRHP (see 33 C.F.R. §330.4(g)). The Corps shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted and these efforts, the Corps shall determine whether the proposed activity has the potential to cause an effect on the historic properties. Where OCTA and/or Caltrans has identified historic properties that the activity may have the potential to cause effects and so notified the Corps, OCTA and/or Caltrans shall not begin

the activity until notified by the Corps Regulatory Division either that the activity has no potential to cause effects or that consultation under section 106 of the NHPA has been completed.

d. Section 106 consultation is not required when the Corps determines that the activity does not have the potential to cause effects on historic properties (see 36 C.F.R. §800.3(a)). If NHPA section 106 consultation is required to occur, the Corps Regulatory Division will notify OCTA and/or Caltrans that work may not begin until section 106 consultation is completed.
e. OCTA and/or Caltrans should be aware that section 110(k) of the NHPA [16 U.S.C. 470h-2(k)] prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, explaining the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

22. *Transfer of LOPs***.** If OCTA and/or Caltrans (Permittee) sells the property associated with a LOP, the Permittee may transfer the LOP to the new owner by submitting a letter to the Corps, Los Angeles District, Regulatory Division to validate the transfer. A copy of the LOP and the name and all available contact information, including company name, addresses, telephone numbers, and e-mail address, must be attached to the letter, and the letter must contain the following statement and signature:

> "When the structures or work authorized by this LOP are still in existence at the time the property is transferred, the terms and conditions of this LOP, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this LOP and the associated liabilities associated with compliance with its terms and conditions, the transferee must sign and date below."

_____ _____

(Transferee) (Date)

23. *Compliance Certification***.** Each Permittee who receives an LOP from the Corps must submit a signed certification regarding the completed work and any required compensatory mitigation within 45 days after completing construction activities. The certification form must be forwarded to the Corps Regulatory Division with the LOP and will include:

a. A statement that the authorized work was done in accordance with the LOP authorization, including any general or specific conditions;
b. A statement that any required compensatory mitigation was completed in accordance with the permit conditions; and
c. The signature of the Permittee certifying the completion of the work and compensatory mitigation.

The use and implementation of the LOP procedures for Corps permit applications is contingent on compliance with the terms and conditions of the LOP procedures. Should a Permittee become non-compliant with permit conditions, the Corps may suspend, revoke, or modify the permit and assess administrative penalties. Pursuant to section 309(g) of the CWA, the Corps is able to levy Class I Administrative Penalties of up to $11,000 per violation of a permit Special Condition, to a maximum of $32,500.

E. Mitigation Framework

In October 2007, an Environmental Oversight Committee (EOC) was formed. The EOC makes recommendations on the allocation of environmental freeway mitigation funds as they relate to the requirements in the Draft M2 Program NCCP/HCP, and section 404 and section 401 Clean Water Act requirements between OCTA and state and federal resource/regulatory agencies. The EOC is comprised of 12 members including members of the public, county-appointed members (local government representatives), and staff from the Corps Regulatory Division, USFWS, CDFW, Caltrans, and OCTA. The EOC has been responsible for the oversight and review of the 5-year M2 Early Action Plan (EAP) to evaluate, select, and fund preserve acquisitions and habitat restoration projects. OCTA, through the work of the EOC, developed a set of criteria to evaluate and prioritize property acquisitions from willing sellers. The EOC selection criteria for mitigation projects and acquisition sites considered a number of biological questions pertaining to the degree to which a parcel contains habitat that will mitigate for species impacted by covered projects and contribute to the collective goals of the regional network of protected areas. Biological criteria also included a review of the same vegetative communities as those habitats that would be impacted by the proposed freeway projects, such as riparian woodlands and wetlands, and considered contiguity of riparian areas and watershed location. These criteria also include a number of non-biological factors as important considerations in land cost valuation and property acquisition, such as the threat of development for each property.

The Corps' participation in the mitigation site selection process and mitigation approval in tandem with development of the NCCP/HCP is expected to ensure that waters of the U.S. are enhanced, restored, and preserved along with upland habitat, thereby providing a comprehensive approach to mitigation in which the result is mitigation occurring within vast areas of open space rather than within narrow riparian corridors that compensate solely for aquatic resource impacts. This holistic approach provides for large and higher quality buffers that protect waters of the U.S. from stressors that are known to impair water quality and aquatic habitat functions, including urbanized areas and anthropogenic uses and stressors (such as parking lots, buildings, residential areas, sports parks, and golf courses), livestock grazing, intensive agricultural use, trash, non-native vegetation, and unregulated human visitation. As a result, water quality and aquatic habitat functions and services are able to be improved and maintained at larger landscape scales. This mitigation-related planning work also provides an important foundation for implementing compensatory mitigation at the earliest stages of the freeway program, potentially before the transportation project impacts occur. Implementing compensatory mitigation in advance of, or at least concurrent with, impacts to waters of the U.S. provides the opportunity to minimize or even eliminate temporal losses of aquatic functions (the losses realized in ecosystems between the time impacts occur and the time comparable functions are gained at the mitigation site(s)). If the mitigation will be implemented prior to project impacts, as is expected, the mitigation sites may even meet final success criteria before transportation project impacts occur, which offers a unique and important potential benefit associated with this program. Moreover, the risk of mitigation failure or mitigation not being implemented on time that can occur with traditional approaches to compensatory mitigation can be eliminated. The following mitigation policies would apply to the M2 LOP projects authorized through the proposed LOP procedures. Compensatory mitigation options will be evaluated as part of the programmatic review of establishing

the LOP procedures. Note that compensatory mitigation will not be required for impacts to concrete lined features.

General Mitigation Policies:

1. *Mitigation Sequencing*. The CWA Section 404(b)(1) Guidelines (40 C.F.R. Part 230) and the Final Mitigation Rule (33 C.F.R. Parts 325 and 332 [40 C.F.R. Part 230]) require adherence to the mitigation sequence, whereby the discharge of dredged or fill materials into waters of the U.S. must first be avoided and then minimized to the maximum extent practicable. Only at that point may compensatory mitigation for the unavoidable impacts to waters of the U.S. be evaluated and approved. Two SAMPs have been developed for the San Diego Creek and San Juan Creek/Western San Mateo Creek watersheds. Consistent with the San Diego Creek Watershed SAMP and the San Juan Creek/Western San Mateo Creek Watershed SAMP, an activity seeking authorization under the proposed LOP procedures, with project impacts within the SAMP areas, would be required to undertake the requisite avoidance measures by avoiding aquatic resources identified as sensitive aquatic resource areas. Sensitive aquatic resources are identified as "Aquatic Resource Integrity Areas" in the San Diego Creek Watershed SAMP; and sensitive aquatic resources are identified as "Areas Ineligible for Abbreviated Permitting" in the San Juan Creek/Western San Mateo Creek Watershed SAMP. The SAMP maps can be found within Enclosure 8. Projects directly and permanently impacting substantial amounts of aquatic resources with moderately to well-developed wetland or riparian vegetation located outside of sensitive aquatic resource areas (as identified in the referenced SAMPs) might still need to demonstrate avoidance. Minimization of impacts may be demonstrated through consistency with the LOP conditions. Compensatory mitigation would be required to offset any unavoidable impacts that would occur after avoidance and minimization measures have been implemented to the maximum extent practicable, pursuant to the Section 404(b)(1) Guidelines.

2. *No Overall Net Loss in Acreage and Functions*. Consistent with the Final Mitigation Rule (33 C.F.R. Parts 325 and 332 [40 C.F.R. Part 230]), overall acreage, services, and functions of wetlands should not be reduced within the watershed on a program level. As such, all permanent impacts to aquatic resources (wetland and non-wetland) will be mitigated, to the maximum extent possible within the impacted watershed. Consistent with the San Diego Creek SAMP and the San Juan Creek/Western San Mateo Creek SAMP, all permanent impacts within the San Diego or San Juan Creek/Western San Mateo Creek watersheds must be mitigated within the San Diego or San Juan Creek/Western San Mateo Creek watersheds, respectively. The amount of required compensatory mitigation must be, to the extent practicable, sufficient to replace lost aquatic resource functions. Appropriate functional or condition assessment methods (e.g., the SAMP Landscape Level Functional Assessment, California Rapid Assessment Method (CRAM), or Hydrogeomorphic (HGM) Approach), or other suitable metrics should be used to evaluate the impact site and to determine adequate and appropriate compensatory mitigation for unavoidable impacts to waters of the U.S. If a functional or condition assessment or other suitable metric is not used, a minimum one-to-one (1:1) acreage or linear feet established/restored/enhanced/preserved to acreage or linear feet permanently impacted compensation ratio shall be used. The Corps determines the appropriate and adequate compensatory mitigation by evaluating and comparing the functions of the aquatic resources to be impacted to the functions of the proposed aquatic resources to be compensated at the mitigation sites(s) (see South Pacific Division, Standard Operating Procedure 12501 for Determination of Mitigation Ratios: http://www.spd.usace.army.mil/Missions/Regulatory/PublicNoticesandReferences/tabid/10390/Article/487058/12501-spd.aspx)

Compensatory mitigation sites shall be designed and maintained to avoid impacts to any existing wildlife movement corridor. Upland or riparian buffers that provide habitat or corridors necessary to maintain or promote a suite of ecological functions of the aquatic resources may be required as part of a compensatory mitigation site, and credit will be provided/recognized for such buffers by the Corps Regulatory Division.

3. *Preparation of a Mitigation Plan.* All HMMPs shall comply with the requirements of the Corps/EPA Final Mitigation Rule "Compensatory Mitigation for Losses of Aquatic Resources"(33 C.F.R. Parts 325 and 332 [40 C.F.R. Part 230]) and the *Final 2015 Regional Compensatory Mitigation and Monitoring Guidelines for South Pacific Division*(http://www.spd.usace.army.mil/Portals/13/docs/regulatory/mitigation/MitMon.pdf). Should any differences in requirements arise, the Corps shall defer to Final Mitigation Rule, until the Corps (Los Angeles District/South Pacific Division) revises its regional guidelines to conform to the Final Mitigation Rule. The HMMP shall be reviewed in conformance with South Pacific Division (SPD) Uniform Performance Standards for Compensatory Mitigation Requirements (QMS Procedure No. 12505). A copy of the Final Mitigation Rule is available online at http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/mitig_info.aspx. Information regarding SPD regional guidelines and uniform performance standards are available online at http://www.spd.usace.army.mil/Missions/Regulatory/PublicNoticesandReferences.aspx.

4. *Calculating Compensatory Mitigation.* Projects with unavoidable permanent impacts to aquatic resources shall provide compensatory mitigation in conformance with the following requirements. While OCTA is pursuing permittee-responsible mitigation to address the unavoidable permanent impacts to waters of the U.S. associated with constructing the M2 LOP projects, compensatory mitigation may be satisfied as well through the contribution of fees equivalent to per acreage mitigation costs at a Corps Regulatory Division-approved third-party mitigation program operating within the watershed (Mitigation Bank, In-Lieu Fee Program; see 7., below).

    a. Mitigation Ratios. The Corps South Pacific Division's Standard Operating Procedure for Determination of Mitigation Ratios (12501 SPD) http://www.spl.usace.army.mil/Portals/17/docs/regulatory/PN_SPD_SOP%20for%20Determination%20of%20Mitigation%20Ratios_20120220_w-attachments.pdf) shall apply to how the Corps Regulatory Division determines an appropriate mitigation ratio.

    b. Offsets for Temporal Loss of Aquatic Resource Functions. Permanent impacts to riparian or wetland habitat authorized by an LOP authorization shall be compensated through consideration of the time needed to achieve full aquatic functional equivalency at the compensatory mitigation site(s). Temporal loss will apply when compensatory mitigation does not occur prior to or concurrent with impacts to waters of the U.S., and may still apply due to a long period needed to reach functional maturity. In general, additional compensatory mitigation for temporal loss will be factored into the final mitigation ratio per the Corps Standard Operating Procedure mentioned above (4.a). As noted previously, impacts within previously authorized concrete channels which are currently serviceable structures are typically not considered a permanent loss and would not require compensatory mitigation.

    c. Delays in Implementation of Compensatory Mitigation. Implementation of compensatory mitigation shall begin, to the maximum extent practicable, before or concurrent with the activity causing the authorized impacts to jurisdictional areas, and according to a Corps Regulatory Division-approved HMMP and construction schedule. The Corps Regulatory

Division expects the OCTA and/or Caltrans to schedule the installation of compensatory mitigation projects to avoid and minimize temporal losses in aquatic functions, such that offsite compensatory mitigation shall be initiated upfront, and on-site mitigation shall be scheduled to account for project site readiness. To offset temporal losses of aquatic functions resulting from the permitted activity, the Corps Regulatory Division may require, on a case-by-case basis, additional compensatory mitigation for delayed implementation of compensatory mitigation beyond the Corps Regulatory Division-approved final construction schedule that extends installation into the next year's growing season[3].

At such time OCTA and/or Caltrans anticipates any delays in the schedule for implementing the mitigation, OCTA and/or Caltrans must notify the Corps Regulatory Division to provide an explanation for the delay and the new expected start date. The Corps Regulatory Division will informally consult with OCTA and/or Caltrans to determine what additional compensatory mitigation or additional monitoring time, if any, will be required to correct any environmental damage due to the temporal lag between functional losses at the impacted site and functional gains at the mitigation site not already accounted for in the previously approved compensatory mitigation ratio. Factors the Corps Regulatory Division will consider include the timing of impacts, time to implementation of compensatory mitigation, certainty of completion, assessment of functions and services at impacted site, and time to develop targeted functions to mature habitat levels at the compensatory mitigation site.

The Corps Regulatory Division will give due consideration to special circumstances and may waive the requirement for additional compensatory mitigation in cases where no substantive temporal loss to aquatic functions or services occurred, or where delayed compensatory mitigation was a result of natural causes beyond OCTA's and/or Caltrans' control, including without limitation, fire, flood, storm, and earth movement, or as a result of any prudent action taken by OCTA and/or Caltrans under emergency conditions to prevent, abate, or mitigate significant injury to persons and/or the property resulting from such causes. [Note: Any action that involves a discharge of dredged or fill material into aquatic resources within the Corps' jurisdiction that is undertaken during emergency conditions must receive prior authorization from the Corps.]

Accordingly, should any additional compensatory mitigation be required, the Corps Regulatory Division will modify the terms and/or special conditions of the LOP to reflect any changes to the compensatory mitigation requirements (33 C.F.R. §325.7) to remedy any non-compliance with permit conditions.

The Corps Regulatory Division shall consider additional or protracted delays in implementation, OCTA and/or Caltrans non-responsiveness, or failure to take agreed-upon corrective measures as permit non-compliance. The Corps would pursue all available remedies under its authority for supervision of authorized activities (33 C.F.R. §326.4), including, but not limited to the following actions: invoking the financial assurances, i.e., calling in part of or the entire performance bond, escrow account, or letter of credit to initiate corrective measures; suspending or revoking the permit (33 C.F.R. §325.7); and pursuing Class I administrative penalties (33 C.F.R. §326.6).

[3] Generally, the growing season for non-tidal wetland and riparian systems not subject to snowfall extends from March through September, although the season may begin earlier at lower latitudes and altitudes.

5. *Temporary Impacts*. The following measures would be required for projects or project activities resulting in temporary impacts to aquatic resources. They are intended to minimize impacts to such aquatic resources.

    a. Any temporary fills must be removed in their entirety and the affected areas returned to their pre-construction conditions, including any native riparian and/or wetland vegetation, at the conclusion of the project. To reduce the potential for erosion and facilitate the recovery of the affected areas, the Permittee shall hydroseed and re-vegetate the disturbed portions of the earthen stream banks and bed and floodplain, as appropriate, with native, non-invasive species. Woody riparian vegetation shall be revegetated with container plantings unless other methods are coordinated and approved by the Corps Regulatory Division. The Permittee shall submit the proposed native planting palette and planting plan for review and approval by the Corps Regulatory Division at least 30 days prior to initiation of construction. The Permittee shall ensure the affected areas (disturbed stream channel bottoms and hydroseeded/re-planted areas) are maintained and monitored for a period of two years after completing the native revegetation activities, such that less than 10 percent (absolute cover) of the areas disturbed by the project are vegetated by non-native and invasive plant species. For each project aquatic feature, the Permittee shall submit a memorandum by December 15th after completion of the two-year maintenance and monitoring period. The memo shall indicate for each project crossing/aquatic impact area, when temporary construction areas were re-contoured to pre-construction conditions, when native planting/seeding was completed, the species and percent cover (absolute) of invasive and/or non-invasive plant species that occur onsite each year prior to treatment, and when and how many/the extent of invasive and/or non-invasive plant species that were removed that year.

    Implementation of the native revegetation of temporary impact areas shall commence immediately following completion of construction or, with written approval from the Corps Regulatory Division, at the beginning of the next growing season after project completion. A delay in native planting to take advantage of the appropriate season should be considered in the LOP application to use established LOP procedures phase in order for appropriate mitigation to be considered by the Corps Regulatory Division. An increase in delay after the LOP has been issued may require a modification to the mitigation requirements and should be coordinated with Corps Regulatory Division to avoid non-compliance action. If native re-vegetation cannot start due to seasonal conflicts (e.g., impacts occurring in late fall/early winter shall not be re-vegetated until seasonal conditions are conducive to re-vegetation), exposed earth surfaces shall be stabilized immediately with jute-netting, straw matting, or other applicable best management practice to minimize any erosion from wind or water. Native revegetation of temporary impact areas shall be completed within 12 months of initial occurrence of project impacts to Corps jurisdictional waters of the U.S. Any temporal loss of riparian/wetland/stream function caused by delays beyond the 12 months in implementation of native revegetation of temporary impact areas shall be mitigated in-kind through riparian/wetland/stream establishment, re-establishment, rehabilitation, and/or enhancement at a ratio as determined by the Corps Regulatory Division in accordance with the latest Standard Operating Procedure for Determination of Mitigation Ratios (i.e. current instructions require that the ratio is increased 0.05:1 for every month of delay). In the event that the Construction Lead (OCTA or Caltrans) is wholly or partly prevented from restoring temporary impacts within the above time frame (causing temporal losses due to delays) because of unforeseeable circumstances or causes beyond reasonable control, and without the fault or negligence of the Construction Lead, including but not limited to

natural disasters (e.g., earthquakes, flooding, etc.), the OCTA/Caltrans may be excused by such unforeseeable cause(s) from the additional 0.05:1 per each month of delay requirement with Corps Regulatory Division approval. Any on-site native re-vegetation deemed infeasible as a result of such unforeseeable causes(s) will be considered a permanent impact, and will be mitigated accordingly. Additional exotic species management is required within the SAMP areas to prevent the establishment of invasive exotic vegetation.

b. If the Corps Regulatory Division determines native revegetation efforts are not resulting in successful recovery of comparable, pre-project aquatic resource functions at any temporary impacts area, the Corps Regulatory Division may require OCTA and/or Caltrans to implement additional native revegetation activities in the treated area, and/or implement additional mitigation activities outside the treated area to ensure aquatic resource losses are minimized or offset adequately.

6. *Long-term Conservation*. Any compensatory mitigation associated with permanent, unavoidable jurisdictional impacts will require legal assurances to ensure the long-term protection of the site's aquatic resources against degradation of integrity over time, unless otherwise approved by the Corps Regulatory Division. Legal assurances include, but are not limited to conservation easements, land dedications, and implementing agreements. The Final Mitigation Rule (33 C.F.R. §332.7) and regional guidance provide more details on legal assurances as well as requirements for long-term conservation management (including in-perpetuity maintenance, monitoring, identification of conservation manager, estimate of annual costs and long-term non-wasting funding mechanism).

7. *Third-Party Mitigation Program or Mitigation Bank.* An alternative method to satisfy compensatory mitigation requirements is the purchase of mitigation credits from a Corps Regulatory Division-approved third-party mitigation program /Mitigation Bank or In-Lieu Fee Program (ILFP). All third-party mitigation programs must comply with the requirements of the Corps/EPA Final Mitigation Rule (33 C.F.R. §332.8).

OCTA M2 Freeway Program, Proposed Compensatory Mitigation

The OCTA M2 Freeway Program, approved by Orange County voters in November 2006, established an Environmental Mitigation Program (EMP) for the advancement of mitigation projects to offset resource impacts associated with construction of the local transportation projects. The goals of the EMP are to engage in comprehensive, rather than piecemeal, mitigation approach to provide higher value environmental benefits such as habitat protection, wildlife corridors, and resource preservation in exchange for streamlined project approvals for the freeway program as a whole. Moreover, the purpose of the EMP is to develop a comprehensive county-wide mitigation strategy that considers species and habitat impacts, the affected watersheds and region, to be implemented as an integrated element of the Transportation Investment Plan and to be utilized by the Corps and other regulatory agencies as compensatory mitigation for unavoidable impacts to wildlife and aquatic resources associated with permitting OCTA M2 Freeway Program transportation projects. OCTA, in coordination with the resource and regulatory agencies for approximately 6 years, has engaged in an extensive evaluation of compensatory mitigation opportunities throughout Orange County, as noted above (E. Mitigation Framework). The following link provides additional information on the OCTA M2 Freeway Program Mitigation program http://www.octa.net/Measure-M/Environmental/Freeway-Mitigation/Overview/. Exhibit 1 (Enclosure 9) depicts the proposed mitigation sites locations for the overall OCTA M2 Freeway Program, which includes species, habitat, and waters of the U.S.

compensatory mitigation. Only sites with waters of the U.S. are depicted on Exhibit 1. To satisfy CWA section 404 compensatory mitigation requirements, OCTA is proposing two (2) mitigation sites that provide enhancement and rehabilitation of waters of the U.S. and other aquatic habitats, and one (1) mitigation site that provides preservation of important physical, chemical, and biological aquatic functions for that watershed and was also under a threat of development.

The OCTA-proposed mitigation sites for the M2 LOP projects are being reviewed by the Corps Regulatory Division for use as permittee-responsible mitigation (PRM), and any required compensatory mitigation shall be consistent with the Mitigation Framework (see Section E, above). Specifically, OCTA has proposed a subset of mitigation from the overall mitigation options available; the two enhancement and rehabilitation projects include the Aliso Creek Mitigation Project and the Aqua Chinon Mitigation Project, and the Ferber Ranch Preserve is proposed for mitigation through preservation.

The Aliso Creek Mitigation Project would enhance and rehabilitate approximately 55 acres of native riparian and adjacent transitional habitat along a critical portion of Aliso Creek that has become substantially degraded over several decades from heavy infestation by *Arundo donax* and other non-native plant species; the infestation is extensive enough to have degraded the geomorphic and habitat processes occurring within this 2.8-mile-long reach of the creek. Of the approximately 55 acres of enhancement and rehabilitation activities proposed for this mitigation project, 11.2 acres occur within waters of the U.S., and approximately 39.1 acres consist of adjacent riparian buffer areas for which OCTA is seeking approval for PRM.

While all three mitigation projects would provide clear aquatic resources benefits, another important factor for selecting the both Agua Chino Mitigation Project and the Ferber Ranch Mitigation Project is their location in Special Area management Plan (SAMP) areas with waters of the U.S. that would be permanently affected by the M2 Freeway Program transportation improvements. Specifically, the Agua Chinon Mitigation Project is located within the San Diego Creek watershed SAMP area, and the Ferber Ranch Preserve site is located within the San Juan Creek/Western San Mateo Creek watershed SAMP area. The San Diego Creek watershed SAMP and the San Juan Creek/Western San Mateo Creek watershed SAMP are comprehensive watershed-specific plans that provide resource protection while allowing for reasonable development uses to proceed. SAMPs address waters of the U.S. permitting, compensatory mitigation for unavoidable impacts to waters of the U.S., and long-term management of aquatic resources. Under the SAMP mitigation framework, all permanent impacts to aquatic resources (wetland or non-wetland waters of the U.S.) must be mitigated within the impacted watershed; therefore, mitigation sites are needed for anticipated losses in these SAMP watersheds associated with the M2 Freeway Program. The analytical process of making compensatory mitigation decisions that support the sustainability or improvement of aquatic resources in a watershed is also consistent with the 2008 Mitigation Rule.

More specifically, the Agua Chinon Mitigation Project would enhance and preserve headwater streams supporting a variety of habitat types including riparian, floodplain, and upland buffer areas. A total of approximately 15.01 acres onsite will be preserved in perpetuity. Of that total, approximately 1.1 acres are non-wetland waters of the U.S. and approximately 13.9 acres are adjacent riparian buffer areas for which OCTA is seeking approval for PRM. Enhancement activities proposed for the Agua Chinon Mitigation Project would consist of removal of non-native, invasive plant species, revegetation with native plant species, and long-term maintenance and management of the site.

The Ferber Ranch Preserve Mitigation Project would preserve approximately 4.8 acres of non-wetland waters of the U.S. and approximately 0.5 acre of wetland waters of the U.S. Since the Ferber Ranch Preserve is located within the San Juan Creek/Western San Mateo Creek watershed SAMP, it would

ensure that permanent impacts to the San Juan Creek/Western San Mateo Creek watersheds are mitigated within the impacted watershed. Ferber Ranch Preserve is adjacent to existing open space lands, including the Cleveland National Forest to the north, Trabuco Creek to the south, and the Joplin's Boys Ranch to the west, which is maintained predominately as open space. The Ferber Ranch property is located within the Trabuco Canyon area of the Foothill/Trabuco Specific Plan (Specific Plan). The Ferber property is one of the larger landholdings within the Specific Plan and has a land use designation that would have allowed the construction of 188 dwelling units. The acquisition of Ferber Ranch as a preserve will allow this core segment of the Trabuco Canyon area to be maintained as open space and ensure preservation of wildlife mobility in the area.

As noted previously in this notice, OCTA and Caltrans are seeking to implement compensatory mitigation in advance of or concurrent with their proposed impacts to waters of the U.S. associated with constructing transportation projects under the OCTA M2 Freeway Program. The expectation is such timing would limit temporal losses in aquatic functions that can occur during the intervening/lag time that often occurs between project impacts occurring in waters of the U.S. and comparable functions being established/restored/enhanced at mitigation sites. As such, it is expected compensatory mitigation for unavoidable impacts to waters of the U.S. would occur early, and potentially before transportation project construction, during the approximate 15-20-year life of the M2 Freeway Program if LOP procedures for it are established.

For additional information please call Veronica Li of my staff at 213-452-3292 or via e-mail at Veronica.C.Li@usace.army.mil. This public notice is issued by the Commander, Los Angeles District.

Regulatory Program Goals:

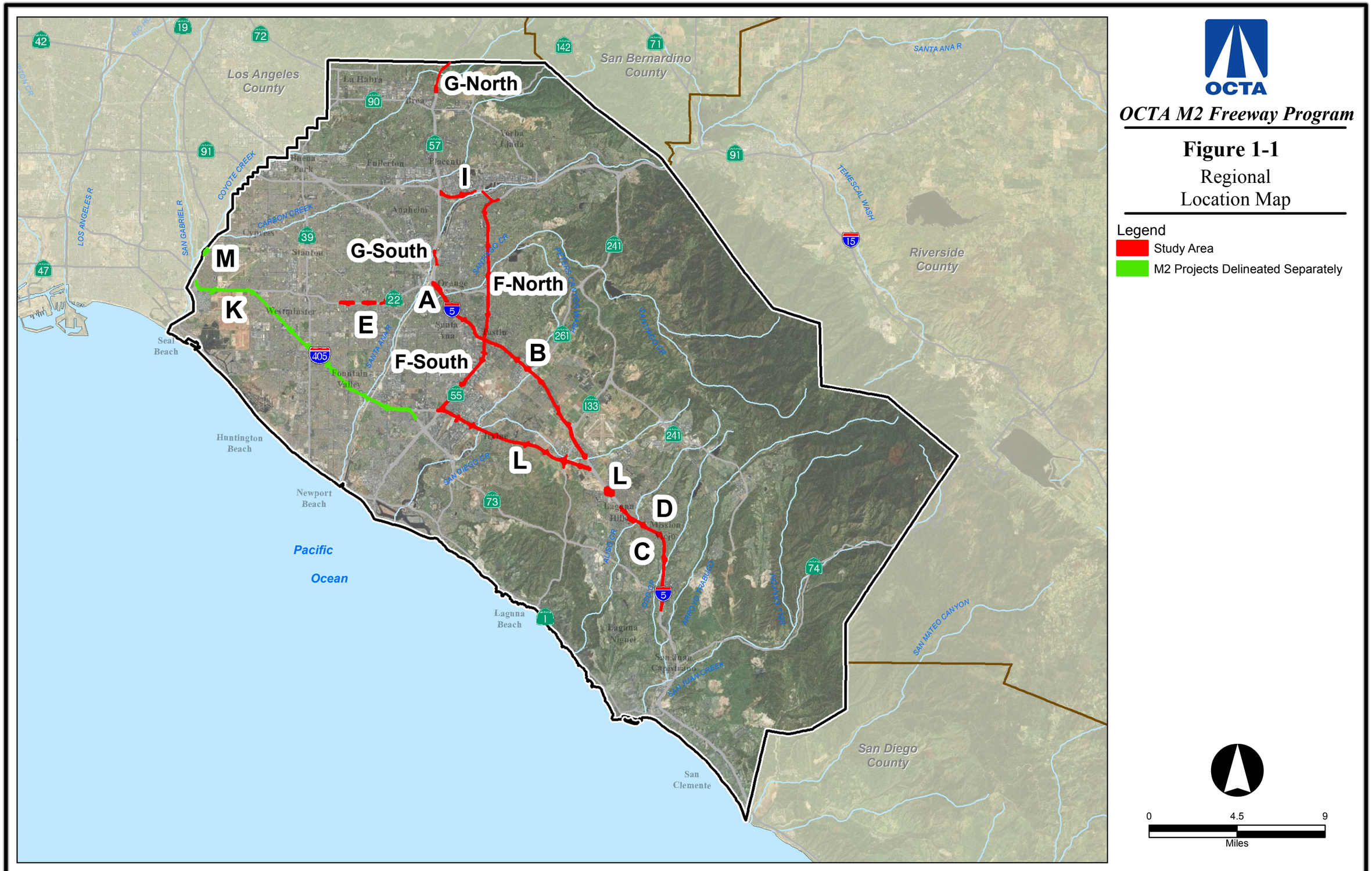
- To provide strong protection of the nation's aquatic environment, including wetlands.
- To ensure the Corps provides the regulated public with fair and reasonable decisions.
- To enhance the efficiency of the Corps' administration of its regulatory program.

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, U.S. ARMY CORPS OF ENGINEERS
915 Wilshire Boulevard, Suite 930
Los Angeles, CA 90017-3401
WWW.SPL.USACE.ARMY.MIL/MISSIONS/REGULATORY

Enclosures:

Enclosure 1: Figure 1: M2 Freeway Program Projects Map
Enclosure 2: Table 1: Township, Range, and Sections
Enclosure 3: Figure 2: Detailed Map of M2 Program Project Study Area
Enclosure 4: Freeway Project Description and Schedule
Enclosure 5: Table 2: Potential Permanent Jurisdictional Impacts by Feature
Enclosure 6: Table 3: Estimated Temporary Jurisdictional Impacts Summary by Watershed
Enclosure 7: Figure 3: LOP flowchart
Enclosure 8: SAMP Area Maps
Enclosure 9: Exhibit 1: Acquired Properties and Funded Restoration Projects

Enclosure 1: Figure 1: M2 Freeway Program Projects Map



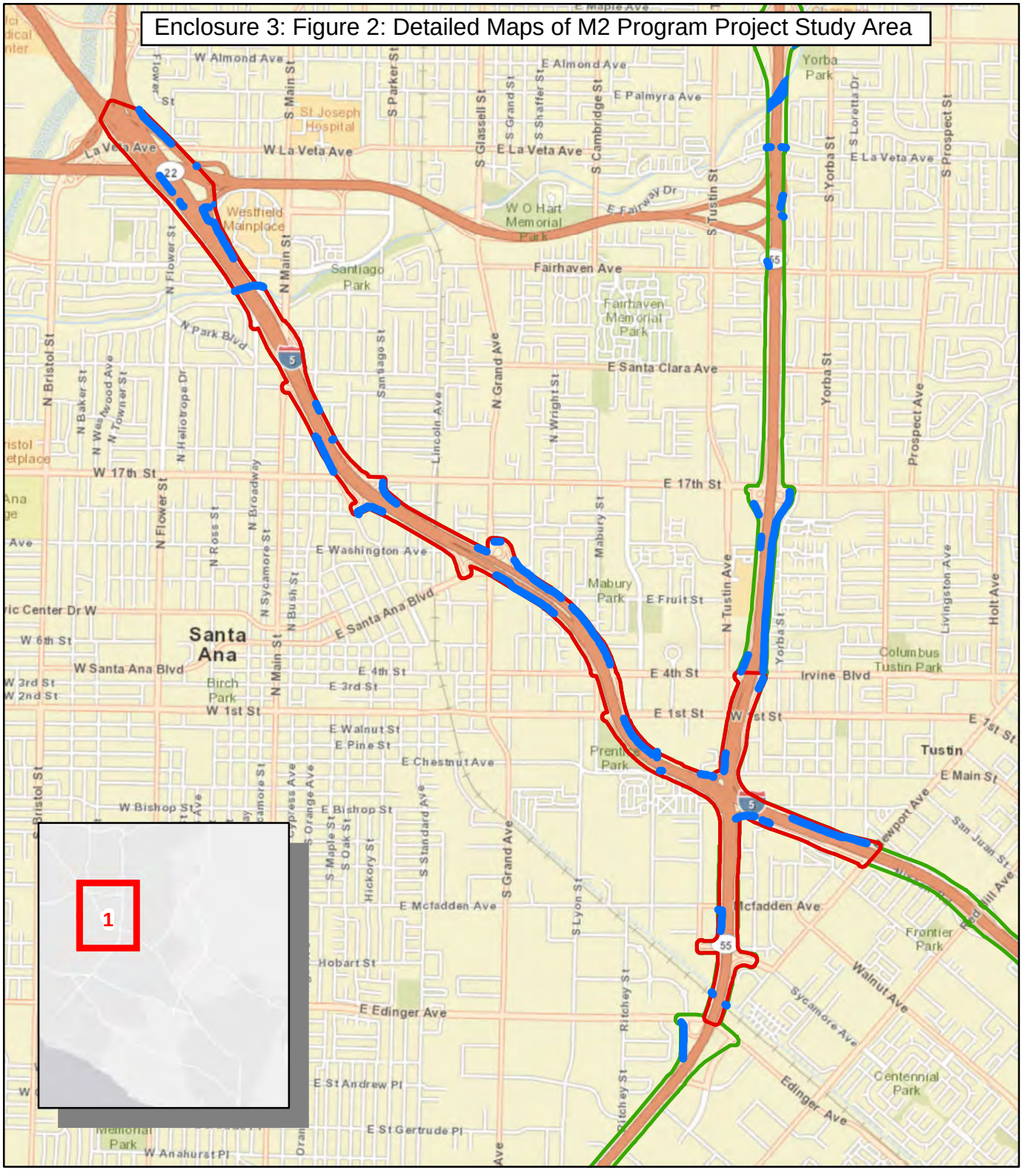
File: S:\projects\mios\octa_nccp\plots\Figures\Wetlands\Regional Projects 11x17.mxd

Date: Jul 19, 2011

ENCLOSURE 2: TABLE 1: Township, Range, and Sections

Township, Range	Sections	Project(s)
Quad: Anaheim		
4 S, 10 W	35	A
4 S, 10 W	3, 4, 5, 6	E
4 S, 10 W	unsectioned, 24	G-North and G-South
Quad: La Habra		
3 S, 10 W	unsectioned, 12, 13, 24, 25	G-North
Quad: Lake Forest (El Toro)		
6 S, 8 W	139, 156	B
6 S, 8 W	156, 157	L
Quad: Los Alamitos		
4 S, 12 W	13, 18, 19, 24, 25, 30, 36	K
5 S, 12 W	1	K
4 S, 11 W	3, 32, 33, 34, 35	K
5 S, 11 W	2, 3, 4, 5, 6, 9, 10	K
Quad: Newport Beach		
5 S, 11 W	13, 14, 23, 24	K
5 S, 10 W	19, 29, 30, 31, 32, 33	K
6 S, 10 W	unsectioned, 7	K
Quad: Orange		
4 S, 9 W	unsectioned	A
4 S, 10 W	unsectioned	A
5 S, 9 W	unsectioned	A
5 S, 10 W	unsectioned	A
4 S, 9 W	unsectioned	F-North and F-South
5 S, 9 W	unsectioned	F-South
4 S, 9 W	1, 12	G-North
4 S, 9 W	unsectioned, 4, 5	I
Quad: San Juan Capistrano		
6 S, 8 W	11, 12, 34, 35	C
7 S, 8 W	unsectioned, 1, 2, 11, 12, 13, 23, 24	C
6 S, 8 W	27, 34	D
Quad: Seal Beach		
5 S, 11 W	10, 11, 14, 15	K
Quad: Tustin		
5 S, 9 W	unsectioned	A
5 S, 9 W	unsectioned, 1, 12, 44, 63, 64, 85, 104, 122, 123, 139, 140	B
5 S, 9 W	unsectioned, 9	F-South
6 S, 9 W	48, 49, 59, 60, 88, 101, 102, 124, 138, 157	L
5S, 10W	unsectioned	F-South
Quad: Yorba Linda		
3 S, 10 W	unsectioned	G-North

Enclosure 3: Figure 2: Detailed Maps of M2 Program Project Study Area



Legend

- Project Survey Area
- Other Survey Areas
- Waters of the U.S.

N

Feet

0 3,190

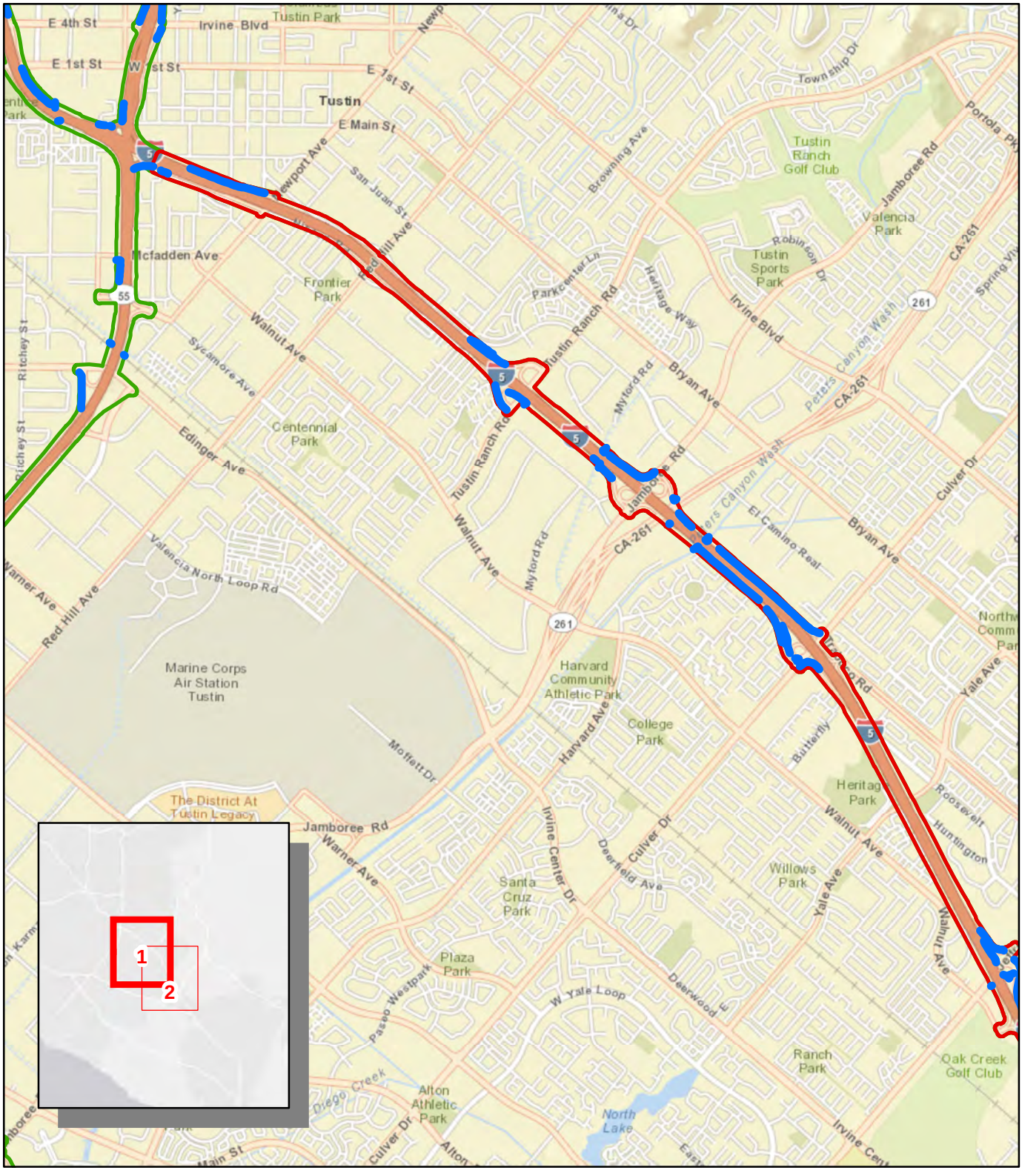
Project A Study Area

Figure 3

OCTA

File:: S:\projects\mios\octa_nccp\plots\Figures\Wetlands\Corps Projects.mxd

Date: 12/20/2012



Legend

- Project Survey Area
- Other Survey Areas
- Waters of the U.S.

N

Feet

0 3,190

OCTA

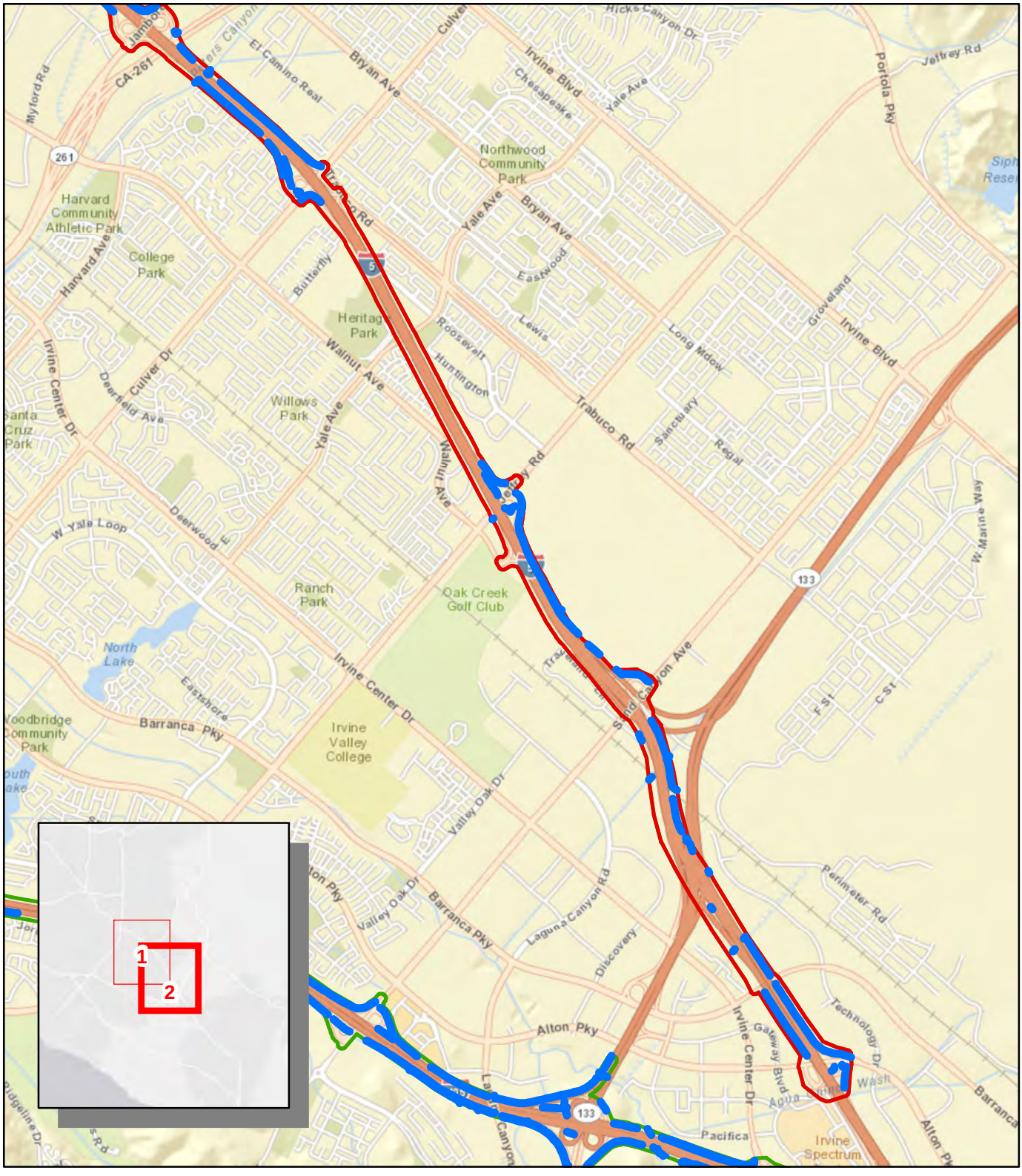
Project B Study Area

Map 1 of 2

Figure 4-1

File:: S:\projects\mios\octa_nccp\plots\Figures\Wetlands\Corps Projects.mxd

Date: 12/20/2012



OCTA

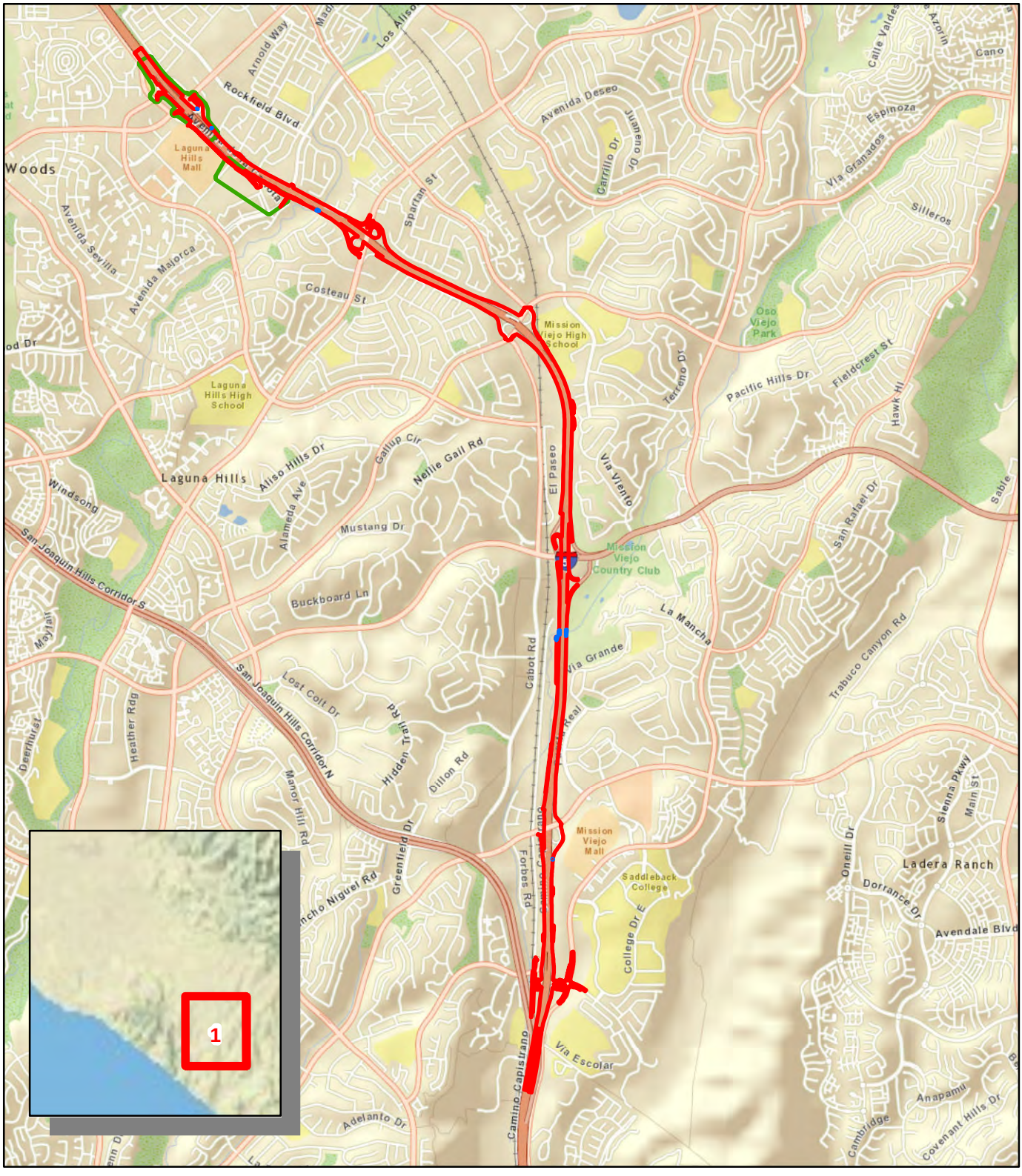
Project B Study Area

Map 2 of 2

Figure 4-2

File:: S:\projects\mios\octa_nccp\plots\Figures\Wetlands\Corps Projects.mxd

Date: 12/20/2012



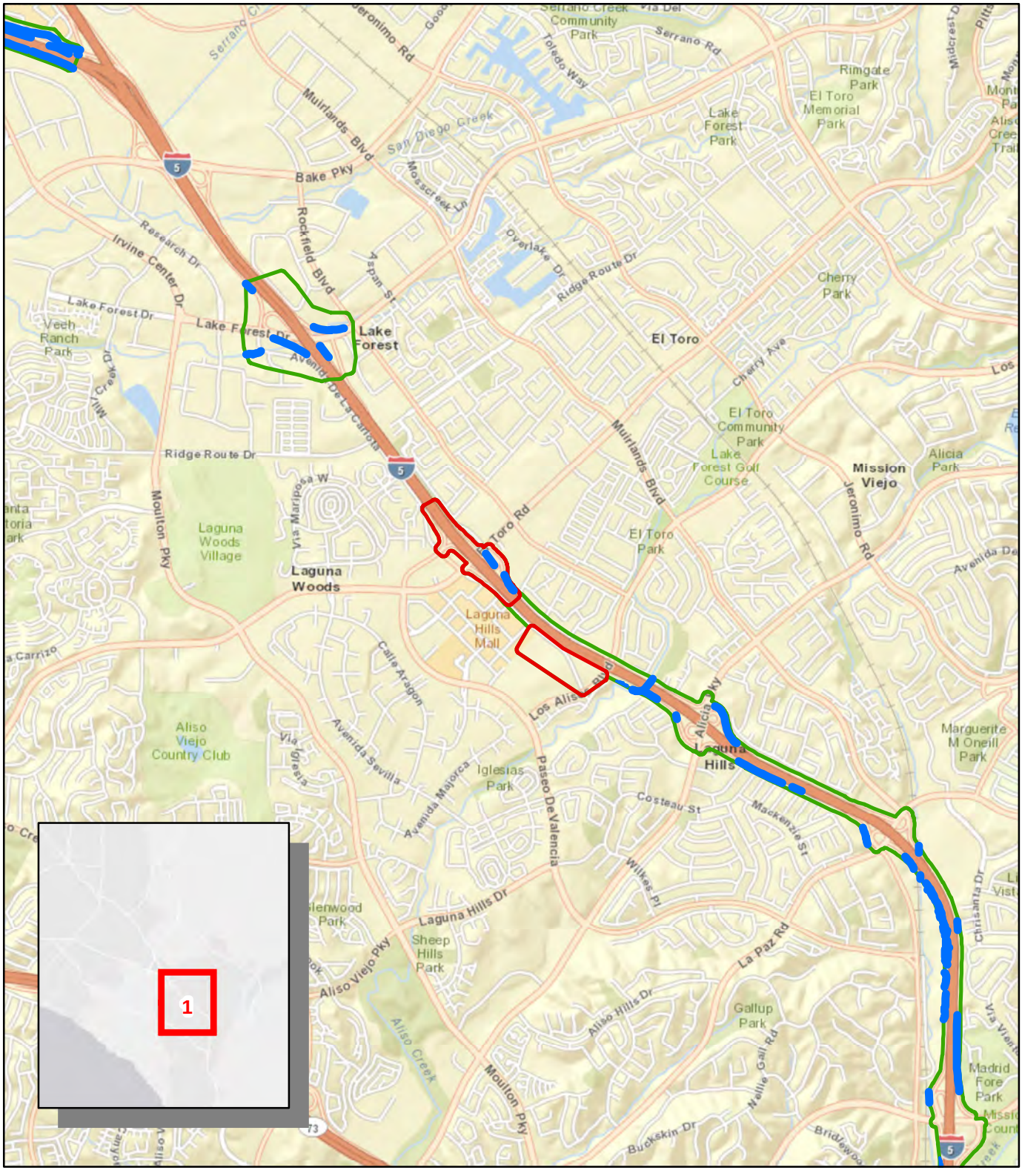
OCTA

Project C Footprint

Figure 5

File:: S:\projects\mios\octa_nccp\plots\Figures\Wetlands\CorpsForPublicNotice\Corps Project C.mxd

Date: 2/4/2015



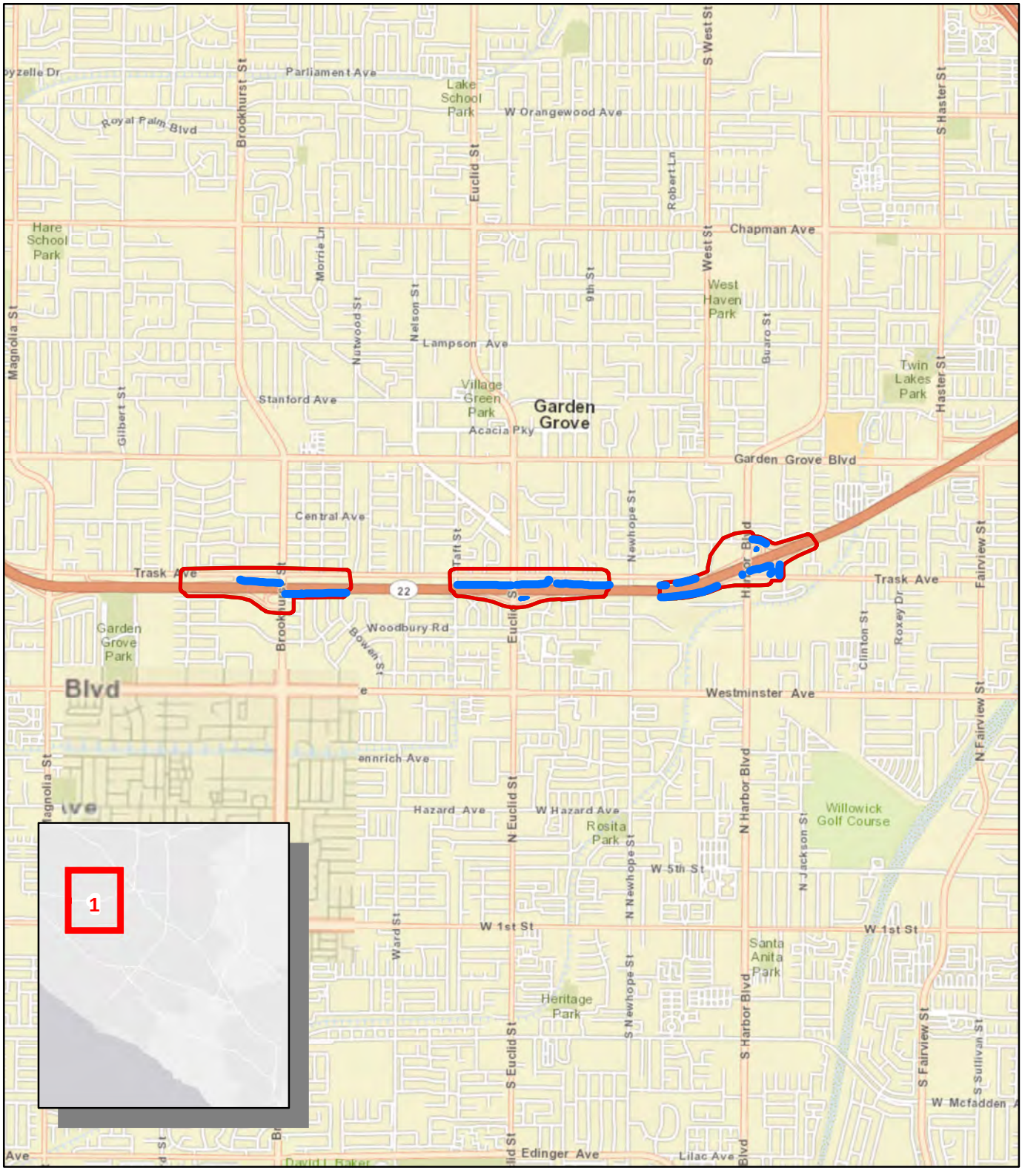
OCTA

Project D Study Area

Figure 6

File:: S:\projects\mios\octa_nccp\plots\Figures\Wetlands\Corps Projects.mxd

Date: 12/20/2012



Legend

- Project Survey Area
- Other Survey Areas
- Waters of the U.S.

N

Feet

0 3,190

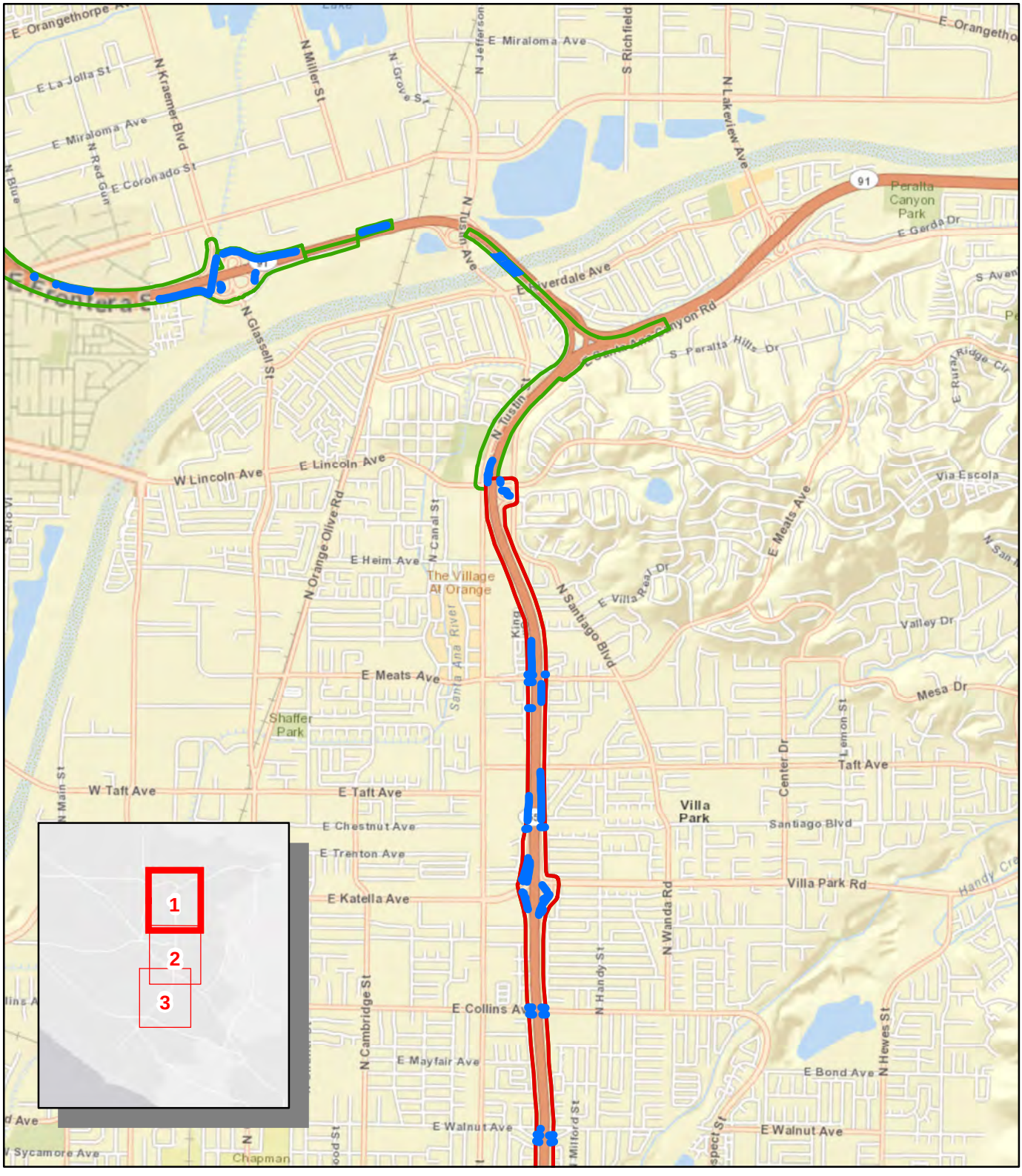
OCTA

Project E Study Area

Figure 7

File:: S:\projects\mios\octa_nccp\plots\Figures\Wetlands\Corps Projects.mxd

Date: 12/20/2012



Legend

- Project Survey Area
- Other Survey Areas
- Waters of the U.S.

N

Feet

0 3,190

OCTA

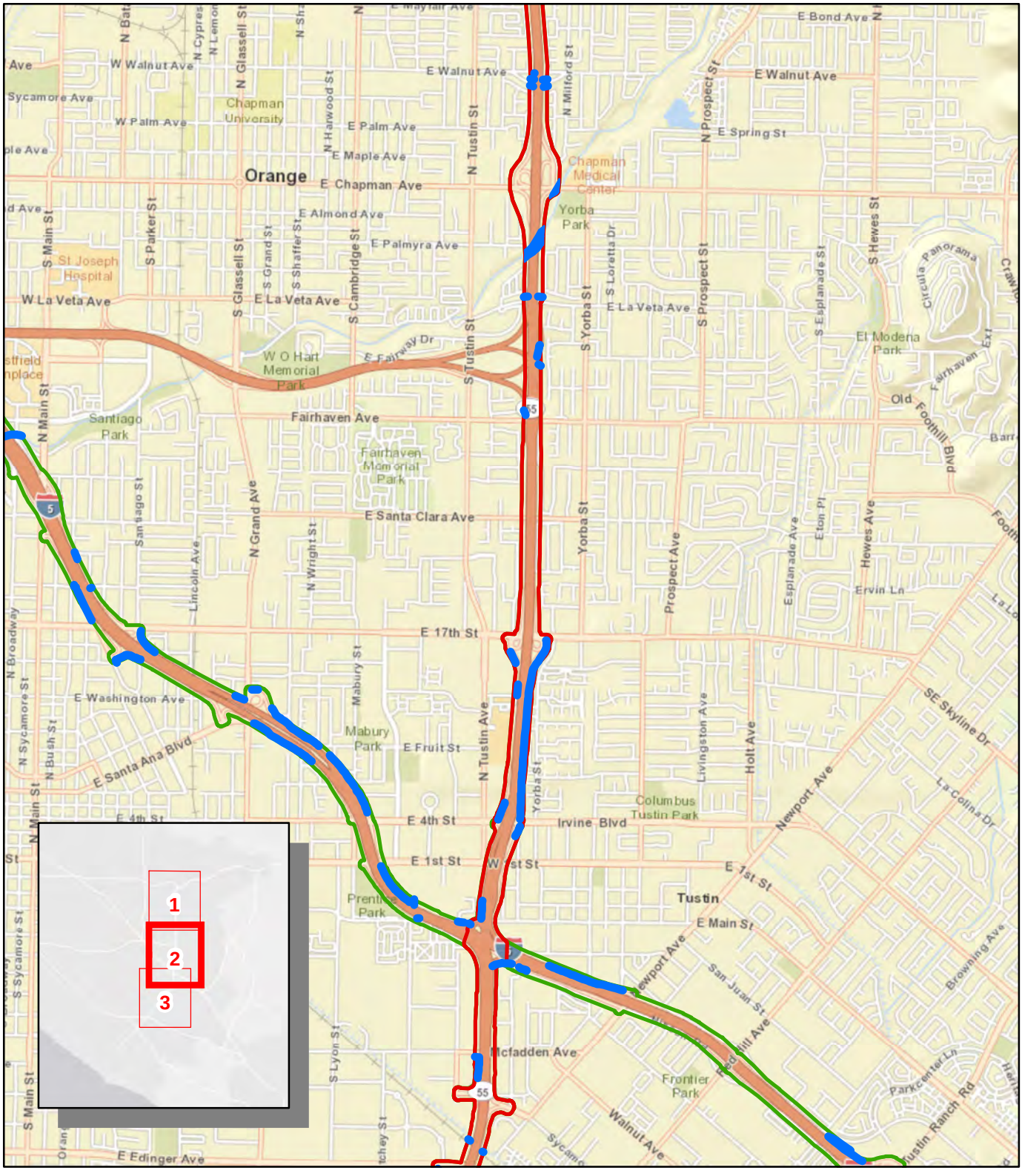
Project F Study Area

Map 1 of 3

Figure 8-1

File:: S:\projects\mios\octa_nccp\plots\Figures\Wetlands\Corps Projects.mxd

Date: 12/20/2012



OCTA

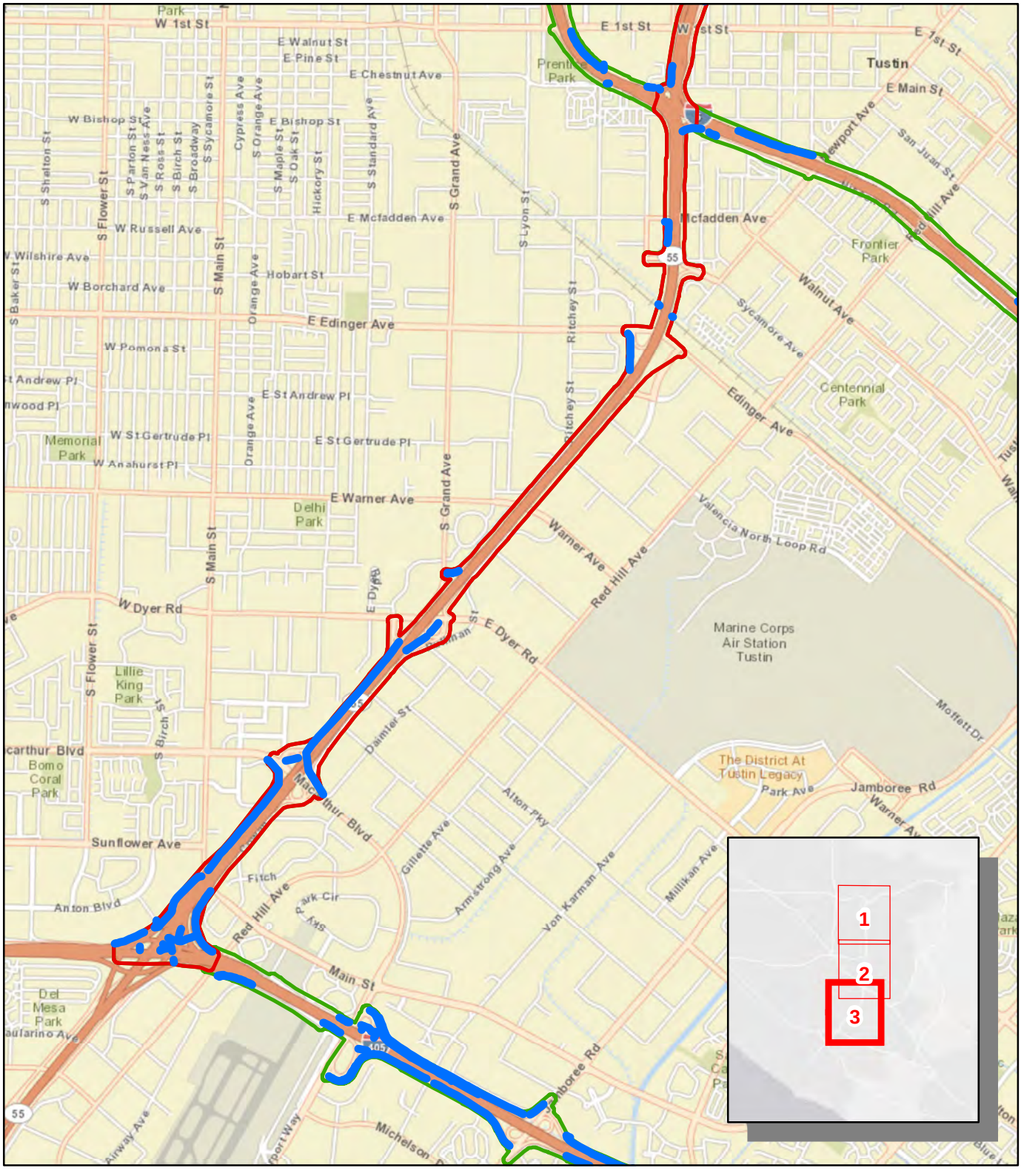
Project F Study Area

Map 2 of 3

Figure 8-2

File:: S:\projects\mios\octa_nccp\plots\Figures\Wetlands\Corps Projects.mxd

Date: 12/20/2012



Legend

- Project Survey Area
- Other Survey Areas
- Waters of the U.S.

N

Feet

0 3,190

OCTA

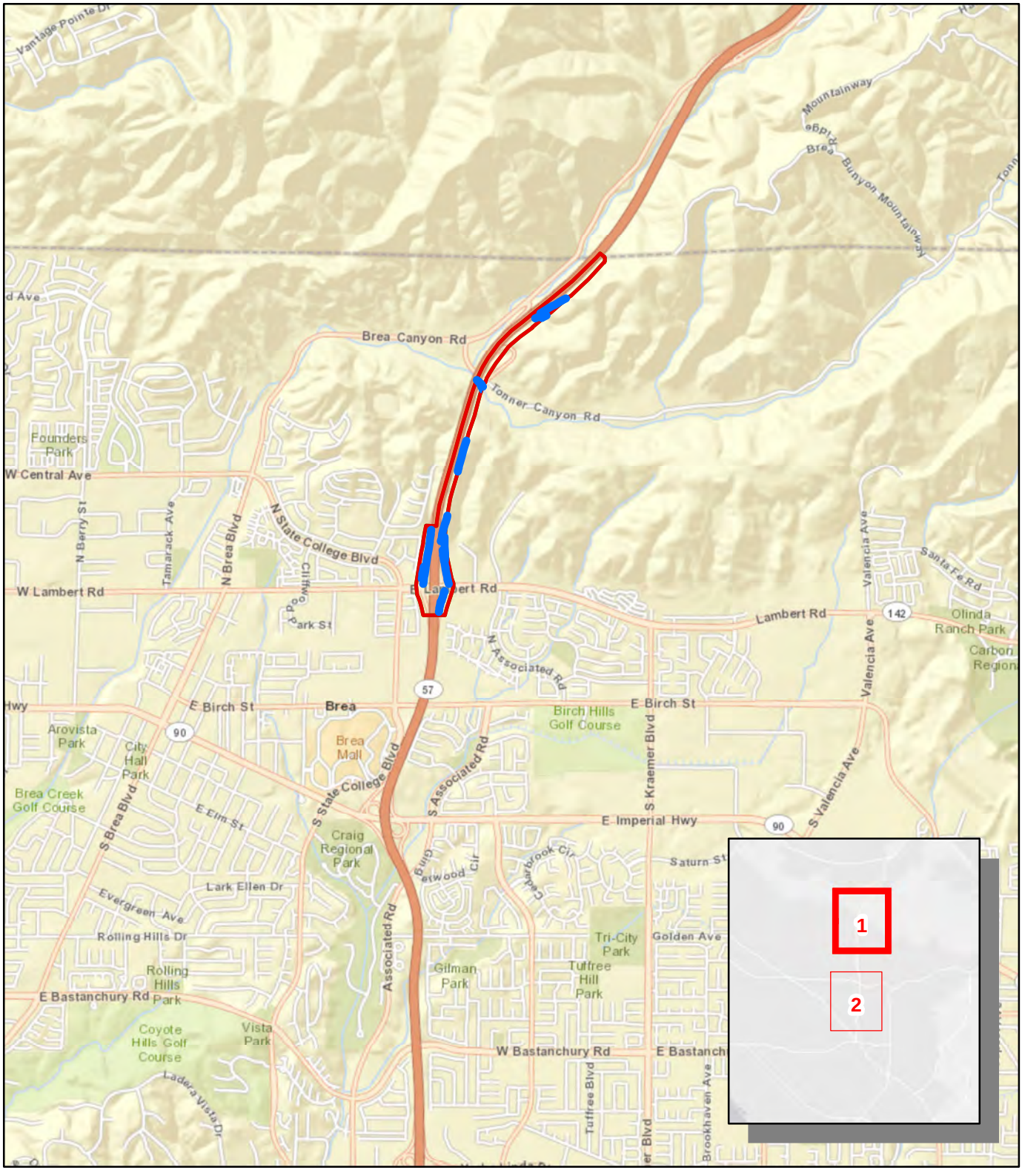
Project F Study Area

Map 3 of 3

Figure 8-3

File:: S:\projects\mios\octa_nccp\plots\Figures\Wetlands\Corps Projects.mxd

Date: 12/20/2012



Legend

- Project Survey Area
- Other Survey Areas
- Waters of the U.S.

N

Feet

0 3,190

OCTA

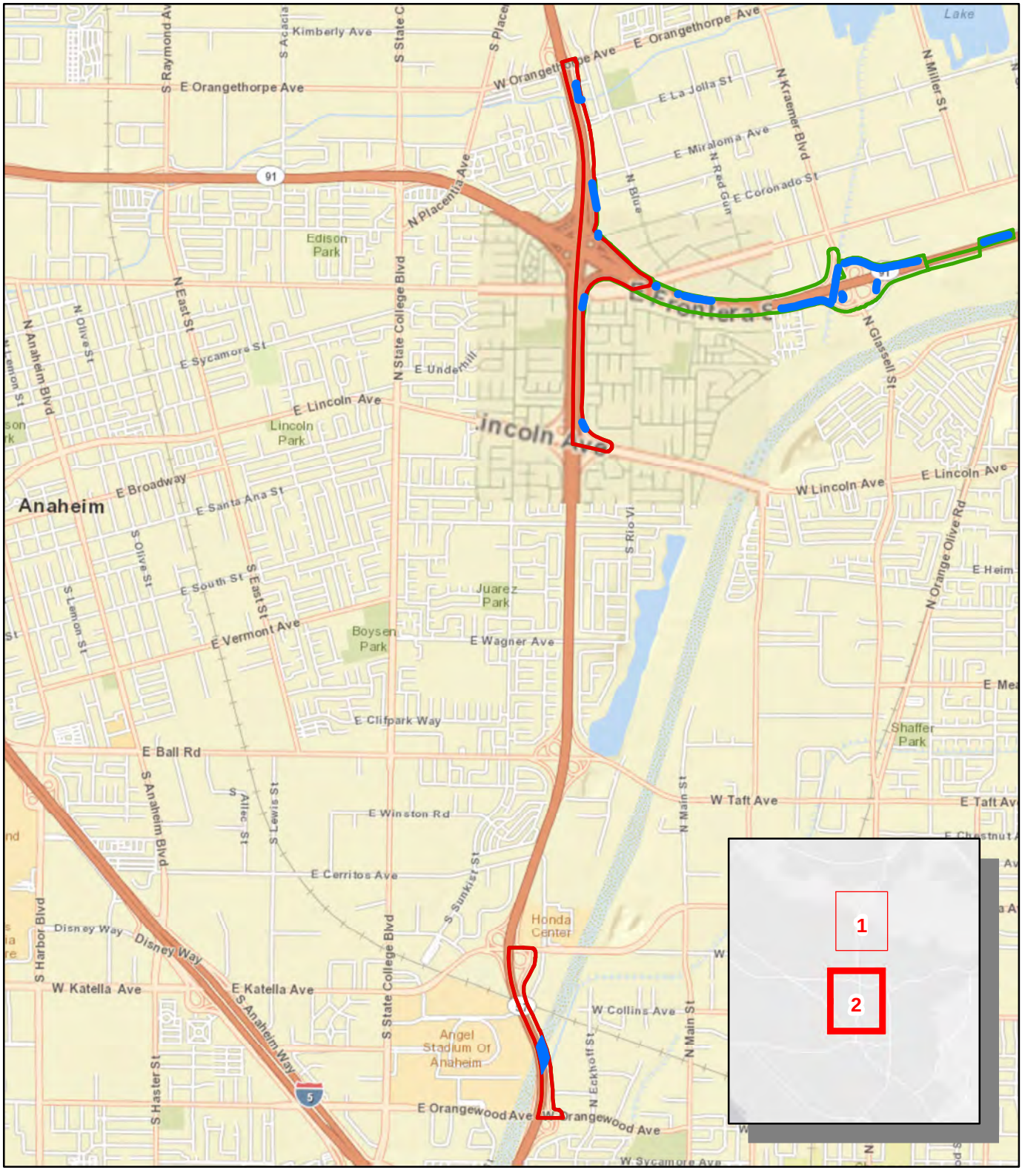
Project G Study Area

Map 1 of 2

Figure 9-1

File:: S:\projects\mios\octa_nccp\plots\Figures\Wetlands\Corps Projects.mxd

Date: 12/20/2012



Legend

- Project Survey Area
- Other Survey Areas
- Waters of the U.S.

N

Feet

0 3,190

OCTA

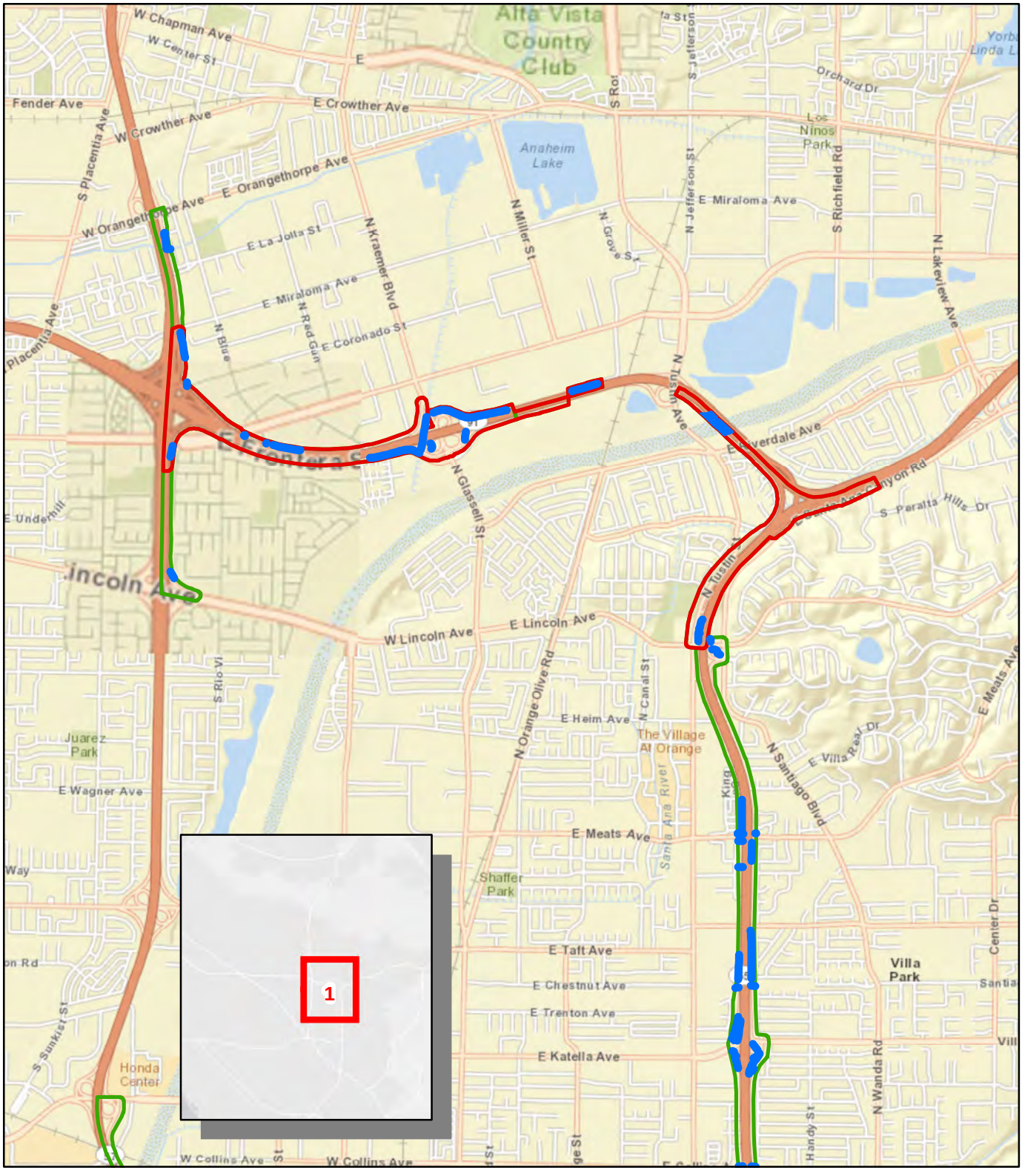
Project G Study Area

Map 2 of 2

Figure 9-2

File:: S:\projects\mios\octa_nccp\plots\Figures\Wetlands\Corps Projects.mxd

Date: 12/20/2012



Legend

- Project Survey Area
- Other Survey Areas
- Waters of the U.S.

N

Feet

0 3,190

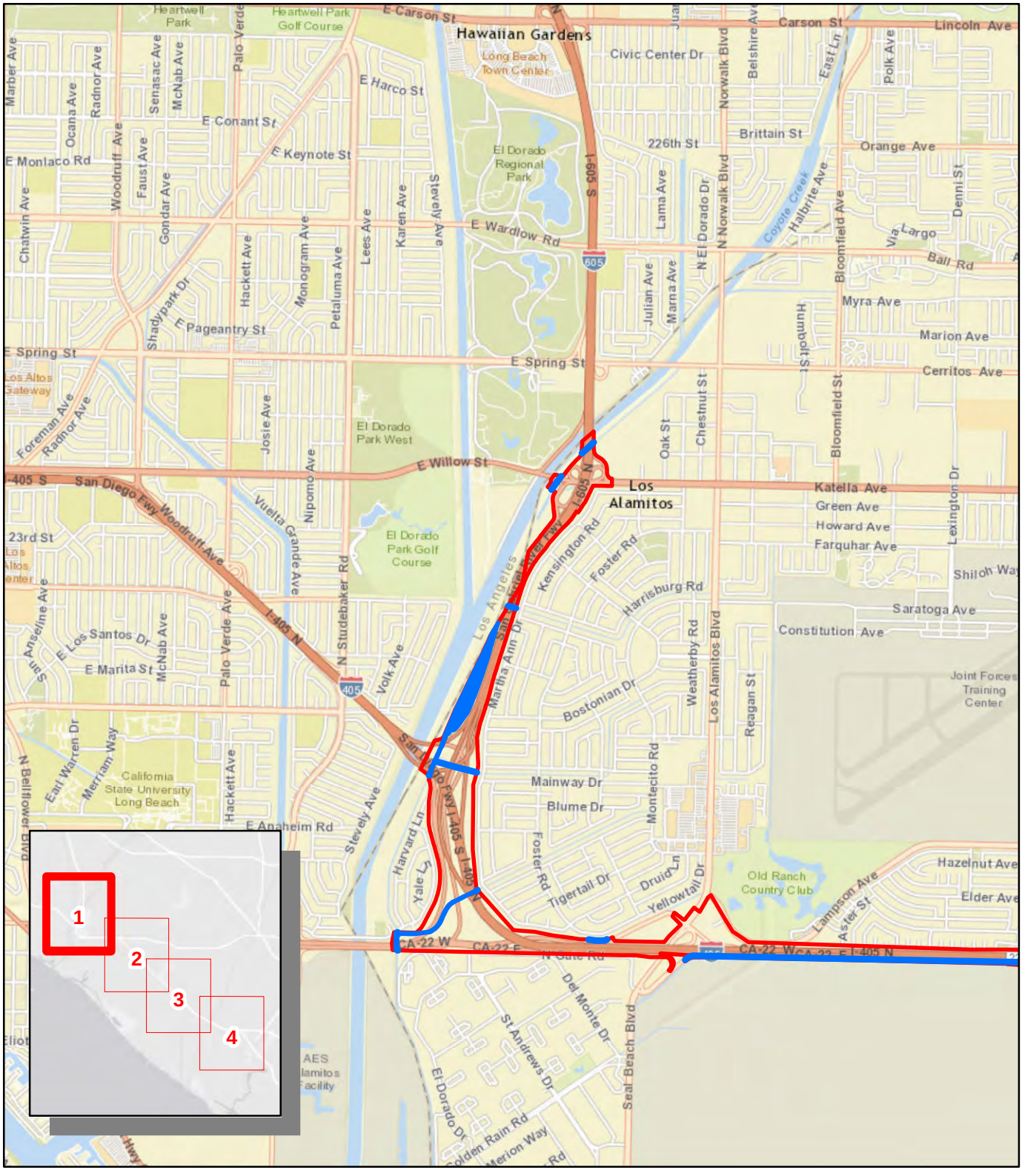
OCTA

Project I Study Area

Figure 10

File:: S:\projects\mios\octa_nccp\plots\Figures\Wetlands\Corps Projects.mxd

Date: 12/20/2012



Legend

- Project Survey Area
- Other Survey Areas
- Potential Waters of the U.S.

N

Feet

0 3,190

OCTA

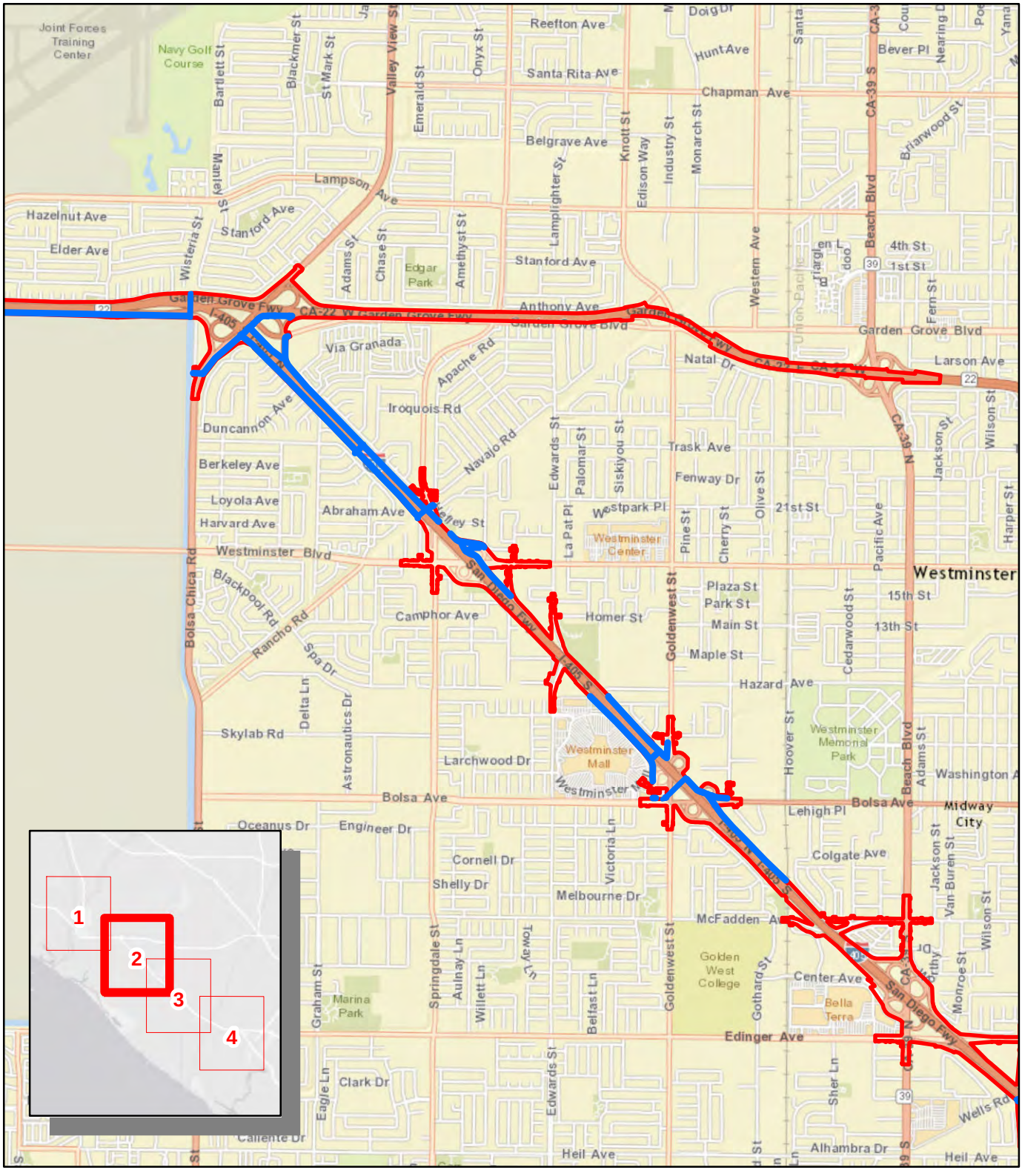
Project K Footprint

Map 1 of 4

Figure 11-1

File:: K:\San Diego\projects\OCTA\NCCP_00536_10\octa_nccp\plots\Figures\Wetlands\CorpsForPublicNotice\Corps Project K.mxd

Date: 3/3/2015



Legend

- Project Survey Area
- Other Survey Areas
- Potential Waters of the U.S.

N

Feet

0 3,190

OCTA

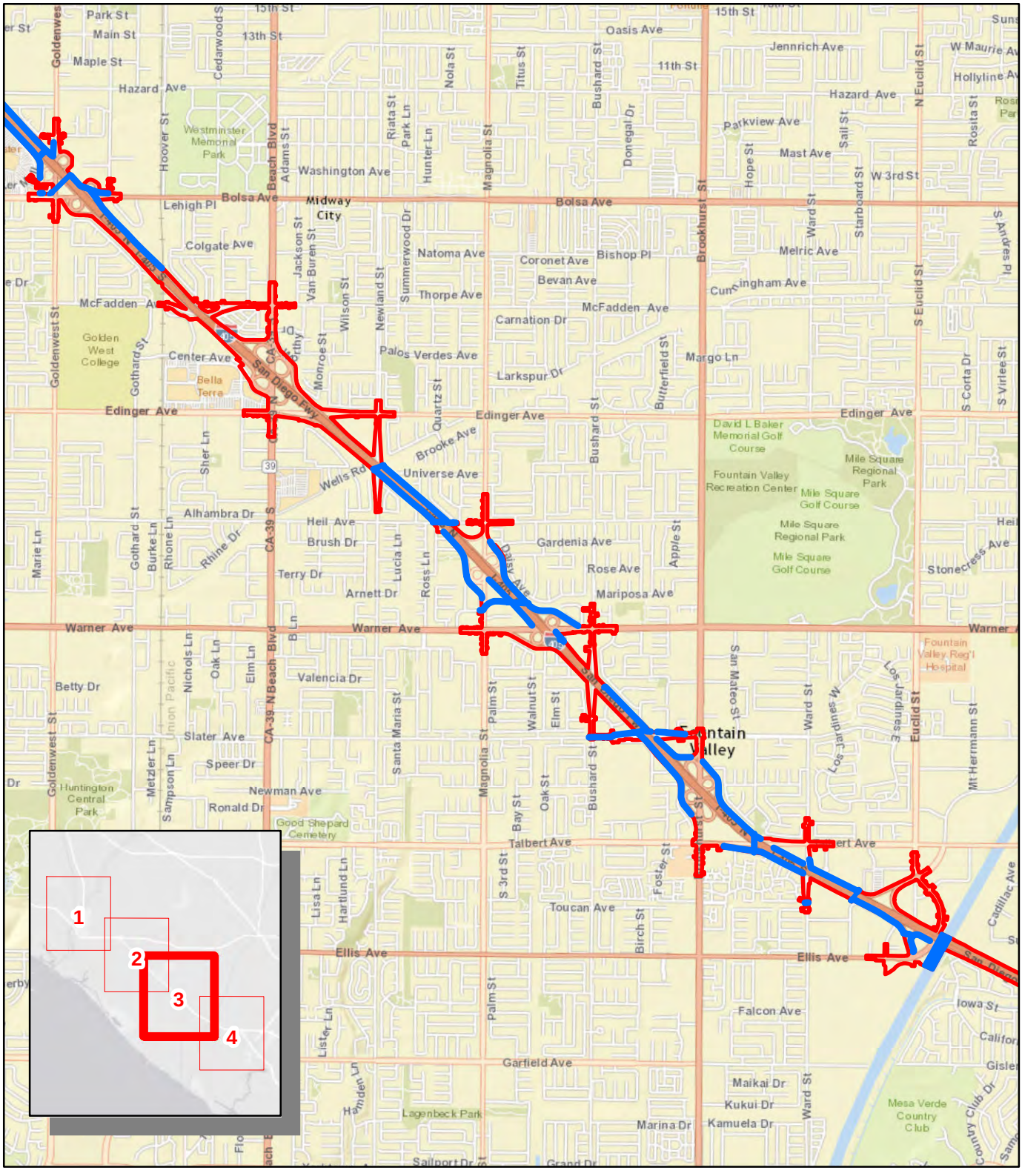
Project K Footprint

Map 2 of 4

Figure 11-2

File:: K:\San Diego\projects\OCTA\NCCP_00536_10\octa_nccp\plots\Figures\Wetlands\CorpsForPublicNotice\Corps Project K.mxd

Date: 3/3/2015



Legend

- Project Survey Area
- Other Survey Areas
- Potential Waters of the U.S.

N

Feet

0 3,190

OCTA

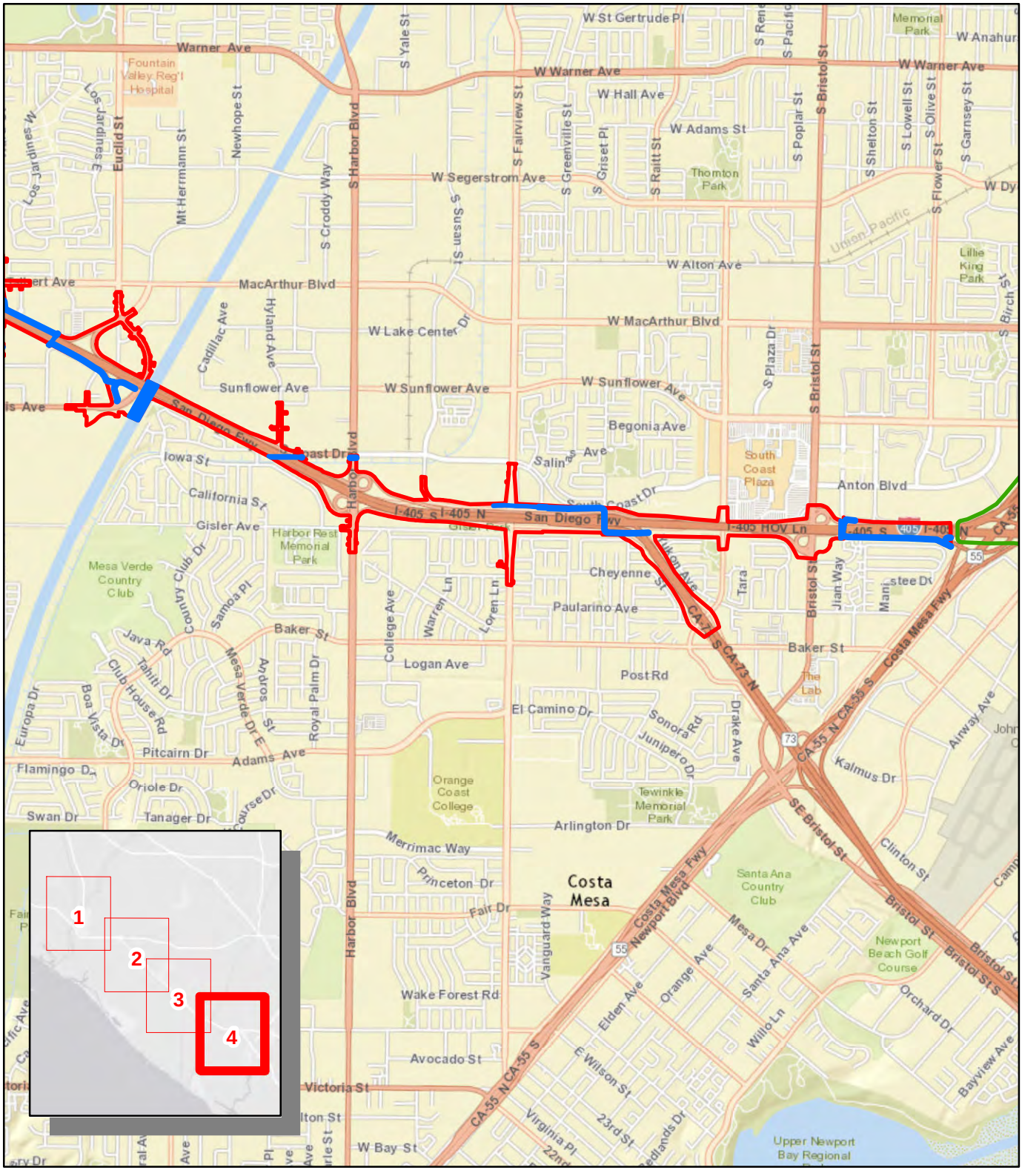
Project K Footprint

Map 3 of 4

Figure 11-3

File:: K:\San Diego\projects\OCTA\NCCP_00536_10\octa_nccp\plots\Figures\Wetlands\CorpsForPublicNotice\Corps Project K.mxd

Date: 3/3/2015



Legend

- Project Survey Area
- Other Survey Areas
- Potential Waters of the U.S.

N

Feet

0 3,190

OCTA

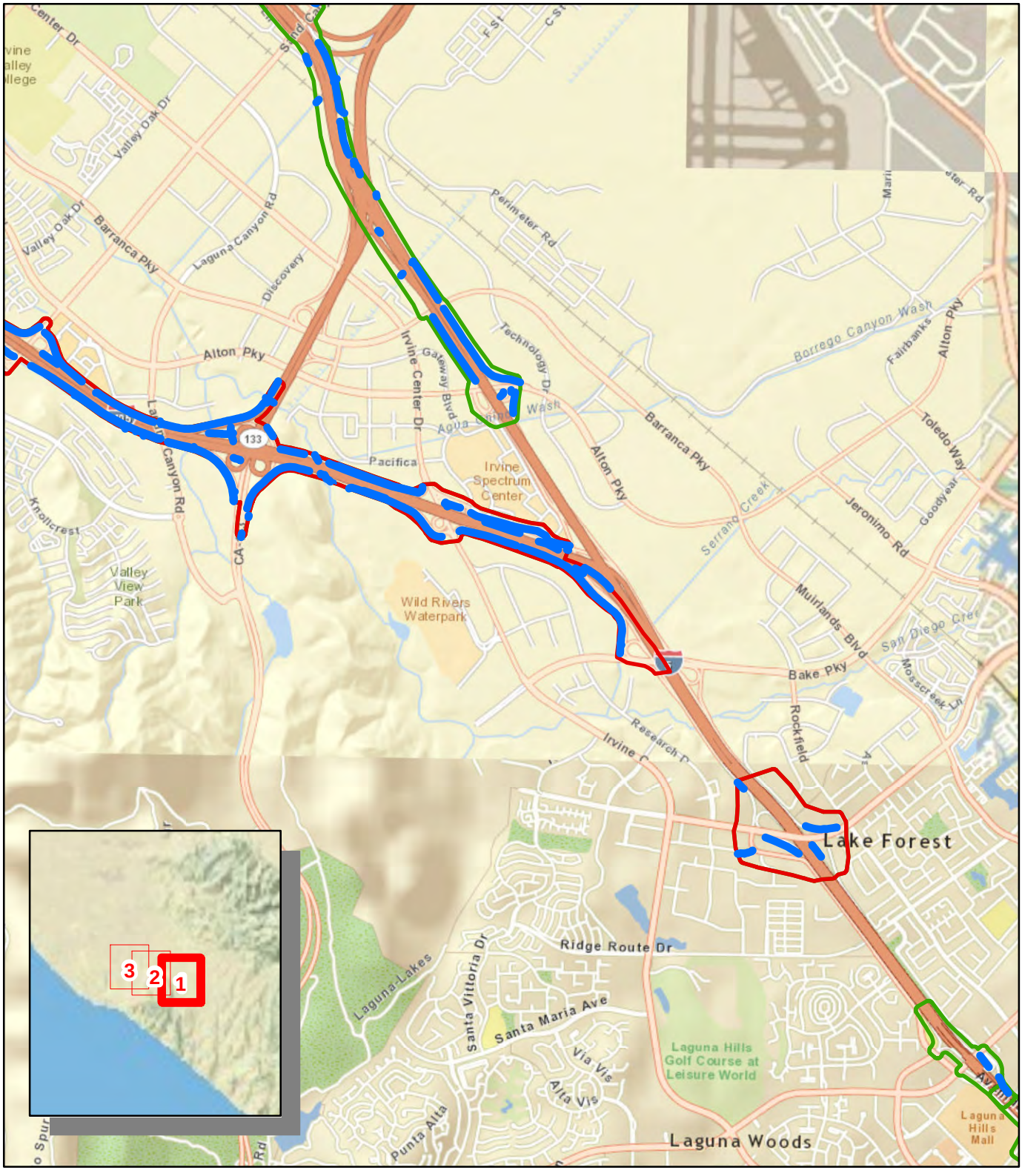
Project K Footprint

Map 4 of 4

Figure 11-4

File:: K:\San Diego\projects\OCTA\NCCP_00536_10\octa_nccp\plots\Figures\Wetlands\CorpsForPublicNotice\Corps Project K.mxd

Date: 3/3/2015



OCTA

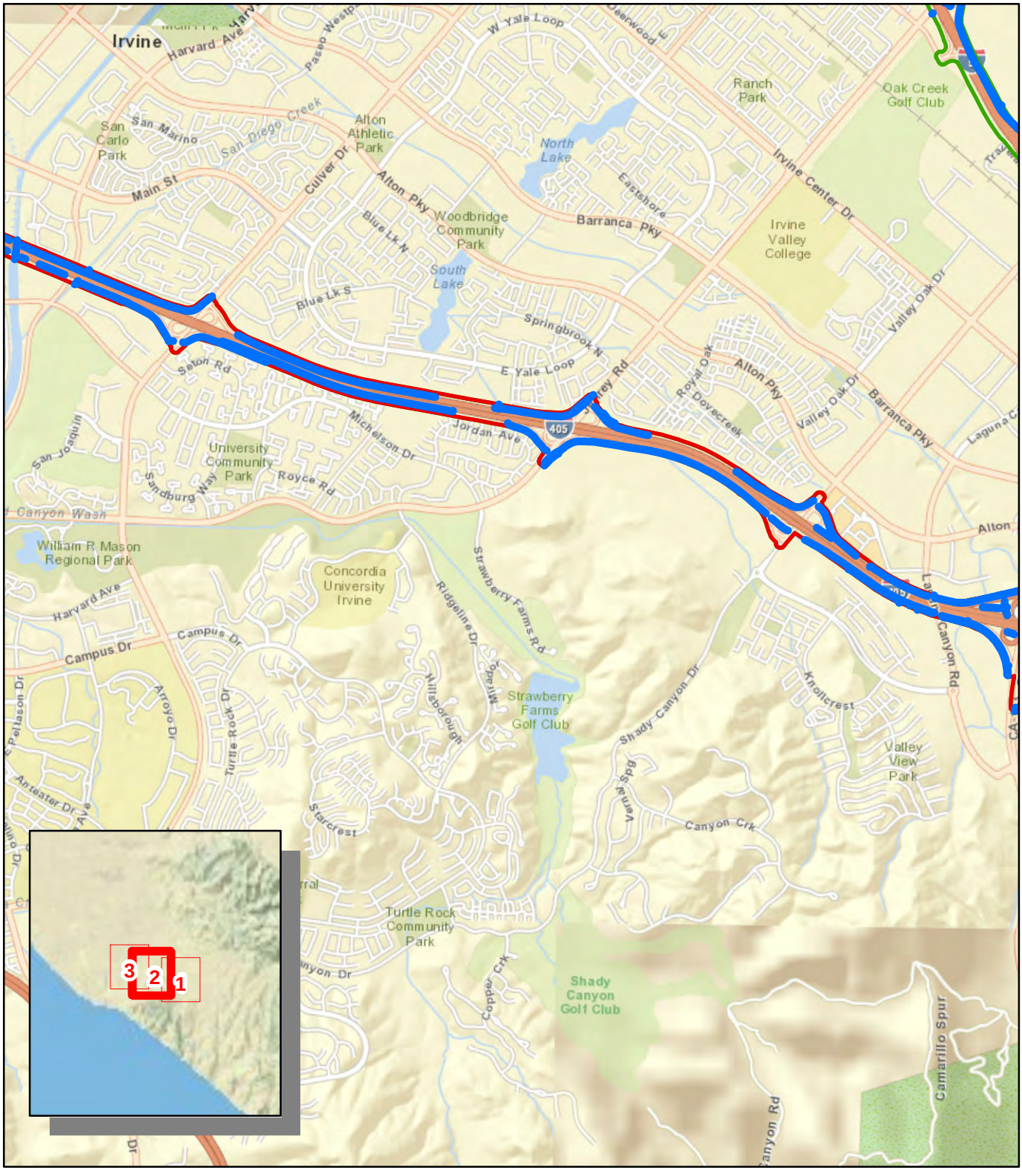
Project L Study Area

Map 1 of 3

Figure 12-1

File:: S:\projects\mios\octa_nccp\plots\Figures\Wetlands\Corps Projects.mxd

Date: 7/9/2013



Legend

- Project Survey Area
- Other Survey Areas
- Waters of the U.S.

N

Feet

0 3,190

OCTA

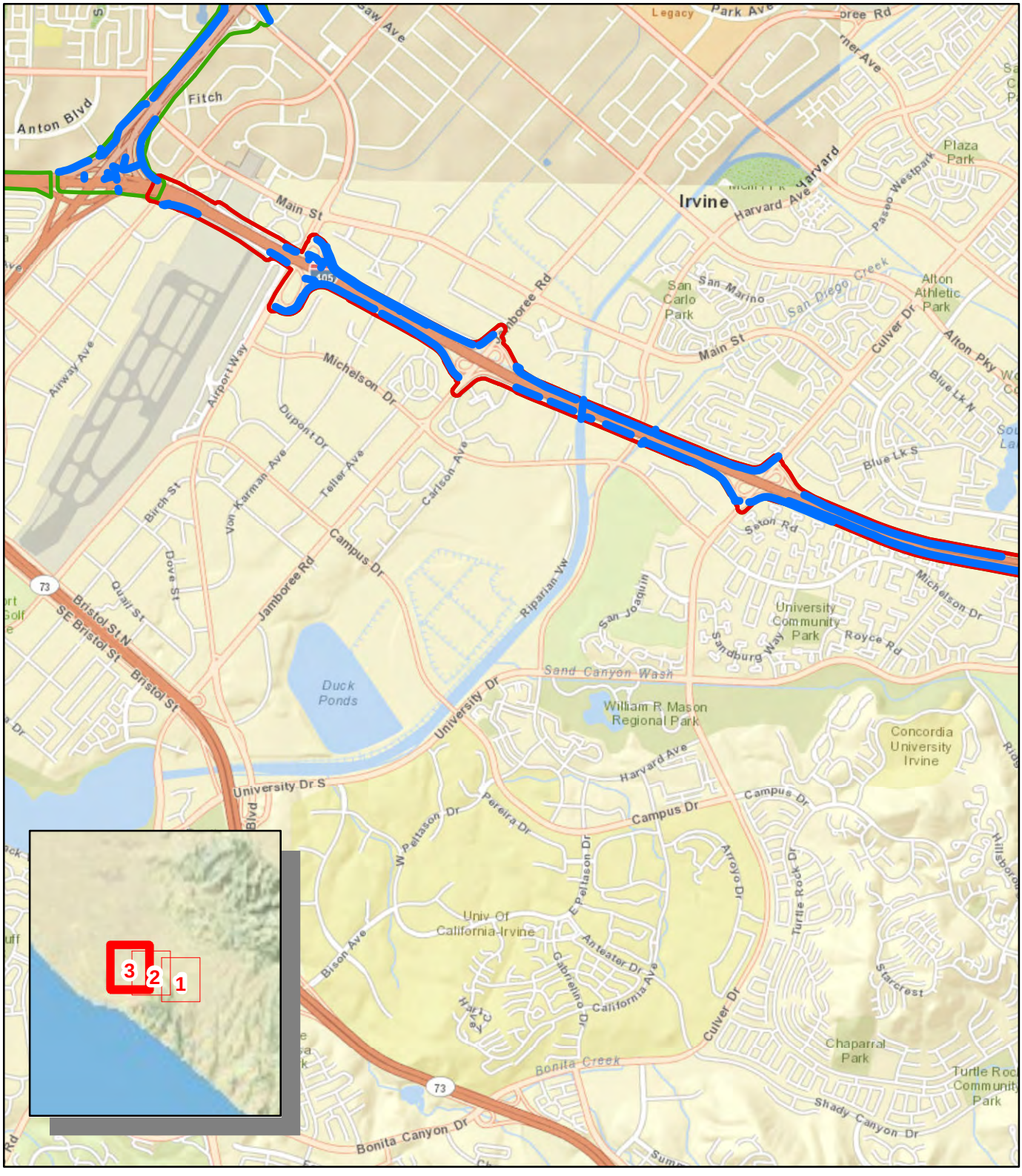
Project L Study Area

Map 2 of 3

Figure 12-2

File:: S:\projects\mios\octa_nccp\plots\Figures\Wetlands\Corps Projects.mxd

Date: 7/9/2013



Legend

- Project Survey Area
- Other Survey Areas
- Waters of the U.S.

N

Feet

0 3,190

OCTA

Project L Study Area

Map 3 of 3

Figure 12-3

File:: S:\projects\mios\octa_nccp\plots\Figures\Wetlands\Corps Projects.mxd

Date: 7/9/2013

Project[1]	Project Description	Estimated Schedule for Submittal of Permit Application[2]	Estimated Schedule for Construction Date[2]	Estimated Project Duration[2]
Project A:	Santa Ana Freeway (Interstate 5) Improvements between Costa Mesa Freeway (State Route 55) and "Orange Crush" Area (State Route 57) (33.758942° N, -117. 860865°W) Project A is proposed to increase freeway capacity and reduce congestion on the Santa Ana Freeway (I-5). Project A would affect two segments: Segment 1, extending from SR-55 to SR-57, and Segment 2, located at the I-5/SR-55 interchange. These Improvements would increase capacity on I-5 between SR-55 and SR-57 and relieve congestion at the I-5/SR-57 interchange, an area known as the "Orange Crush." Proposed construction would take place generally within the existing right-of-way. Interchange improvements would occur between the Fourth Street and Newport Boulevard ramps on I-5, between Fourth Street and Edinger Avenue on SR-55 as it crosses SR-55 and SR-57.	2016 (Q1)	2016 (Q3)	2 years
Project B:	I-5 Improvements from SR-55 to El Toro "Y" Area (33.701636°N, -117.776810°W) The purpose of Project B is to increase freeway capacity and reduce congestion on I-5 as it extends from SR-55 to the interchange area between SR-55 and SR-133, an area known as the El Toro "Y." Proposed improvements include the construction of new lanes and improvements to existing interchanges. Project B construction would takes place generally within the existing right-of-way.	2018 (Q1)	2018 (Q3)	TBD
Project C:	North Portion of I-5 Improvements between El Toro Interchange and SR-73 (33.578487°N, -117.671779°W) Project C is proposed to reduce freeway congestion in south Orange County and improve and update key interchanges on I-5 to relieve street congestion around older interchanges and on-ramps. The North Portion of Project C would improves I-5 south of the El Toro "Y" by constructing new lanes from the vicinity of the El Toro interchange in Lake Forest to the vicinity of SR-73 in Mission Viejo. Project C also involves major improvements to local interchanges. Project C includes the I-5/Avery interchange and the I 5/La Paz interchange. Project construction takes place generally within the existing right-of-way.	2018 (Q2)	2018 (Q4)	5 years
Project D:	I-5 Local Interchange Improvement (33.614743°N, -117.707694°W) Project D updates and improves El Toro Road interchange on I-5, located in Lake Forest and Laguna Hills.	2018 (Q3)	2019(Q1)	TBD
Project E:	Garden Grove Freeway (SR-22) Access Improvements (33.766037°N, -117.937727°W) Project E would improve interchanges along SR-22 at Euclid Street, Brookhurst Street, and Harbor Boulevard in order to reduce freeway and surface street congestion near these interchanges. Specific improvements are subject to approved plans developed in cooperation with local jurisdictions and affected communities.	>2027	TBD	TBD
Project F:	SR-55 Improvements (33.808197°N, -117.831925°W) Project F-South would increases freeway capacity and reduce congestion through the addition of new lanes to SR-55 between the Garden Grove Freeway (SR-22) and the San Diego Freeway (I-405). These improvements include merging lanes between interchanges to smooth traffic flow. Proposed project construction takes place within the existing right-of-way. Project F-North also provides for freeway operational improvements for the portion of SR-55 between SR 91 and SR-22. Construction of these improvements would also take place generally within the existing right-of-way.	South: 2017 (Q3) North: 2018 (Q4)	South: 2018 (Q1) North: 2019 (Q2)	South: 3 Years North: TBD
Project G:	SR-57 between Orangewood Avenue and Lambert Road Northbound—General-Purpose Lane Improvements (33.800319°N, -117.878108°W) Project G is proposed to increase freeway capacity and reduce congestion associated with SR 57. This project is composed of two segments. G-South: Addition of a northbound lane between Orangewood Avenue and Katella Avenue. G-North: Addition of a northbound truck climbing lane between Lambert Road and Tonner Canyon Road and improvements to the Lambert interchange. The improvements are designed and coordinated specifically to reduce congestion at the SR-57/SR-91 interchange. All improvements associated with Project G would generally occur within the existing right-of way.	South: 2018 (Q4) North: >2022	South: 2019 (Q2) North: TBD	South: 3 Years North: TBD
Project I:	SR-91 Improvements from SR-57 to the SR-55 Interchange (33.850158°N, -117.846339°W) Project I would increase freeway capacity to SR-91 between SR-57 and SR-55. Project I would also improve the SR-91/SR-55 and SR-91/SR-57 interchange complexes and nearby local interchanges such as Tustin Avenue and Lakeview Avenue. Project construction generally occurs within the existing right-of-way.	2018 (Q2)	2018 (Q4)	TBD
Project K:	San Diego Freeway (I-405) Widening Project from SR-55 to San Gabriel River Freeway (I-605) (33.732734°N, -117.989593°W) Project K increases freeway capacity and reduces congestion associated with I-405. The proposed project adds new lanes to the San Diego Freeway between I-605 and SR-55, generally within the existing right-of-way. The project would update interchanges and widen all local overcrossings according to city and regional master plans. The proposed improvements are coordinated with other planned I-405 improvements, including improvements to the I-405/SR-22/I-605 interchange area to the north and I-405/SR-73 improvements to the south. The improvements adhere to the recommendation of the I-405 major investment study, adopted by the OCTA in October 2005, and are developed in coordination with local jurisdictions and affected communities.	2015 (Q2)	2015 (Q4)	4 years
Project L:	I-405 Improvements between SR-55 and I-5 (33.663738°N, -117.796673°W) Project L would increases freeway capacity and reduces congestion associated with I-405. The proposed project adds new lanes to I-405 from SR-55 to I-5. The project eases chokepoints at interchanges and adds merging lanes near on- and off-ramps, such as those at Lake Forest Drive, Irvine Center Drive, and SR-133, to improve overall freeway operations in the I-405/I-5 El Toro "Y" area. Project L is constructed generally within the existing right-of-way.	2018 (Q4)	2019 (Q2)	TBD
Project M:	I-605 Freeway Access Improvements (33.663738°N, -117.796673°W) Project M improves freeway access and arterial connections to I-605 that serve the communities of Los Alamitos and Cypress. The project is coordinated with other planned improvements along SR-22 and I-405. This improvement connects to interchange improvements at I-405 and SR-22 as well as new freeway lanes between I-405 and I-605. Project M occurs within the Project K footprint and is considered a part of that project. Project M is not addressed separately in this permit application.	2015 (Q2)	2015 (Q4)	4 years

[1] Projects may be split into separate LOPs.

[2] Estimated schedule based on OCTA's Capital Action Plan; schedule dated January 2014.

Table 2. Potential Permanent Jurisdictional Impacts by Feature

Feature Name	Project/ Route	Impact Figure	HUC 10	HUC 8	Channel Description/ Location Relative to Freeway	Existing Structure to Be Modified	Anticipated Proposed Activity	Estimated Perm Impacts Non-Wetland Waters of the U.S. (acres)	Estimated Perm Impacts Wetland Waters of the U.S. (acres)	Estimated Impacts Waters of the U.S. (linear feet)	Estimated Width at Impact Location	Feature Width (feet)	Current Proposed Mitigation	Potential Minimization Measure
A-21 Santiago Creek	A/I-5	A4	Santiago Creek	Santa Ana	Confined channel/ perennial/earthen bottom with partial concrete and riprap banks/ unvegetated/flows under freeway	Bridge/1 wall pier or multiple cylindrical piers are present	Widen road/bridge by adding cylindrical piers or extending wall piers; assumed permanent impacts include area under bridge and 75-80' upstream and downstream from bridge deck to include any potential grading, riprap, or concrete	0.21	0	183	Upstream: 52 Downstream: 52	27-52	Rehabilitation: Aliso Creek (San Juan Watershed HUC 8)	Current channel design is trapping sediment; reduce channel width in a portion of the bridge so that sediment and water are conveyed more efficiently.
C-9 Oso Creek (Drainage 3 in NES)	C/I-5	C14, C15	San Juan Creek[2]	San Juan	Perennial earthen channel with abundant riprap/wetland/riparian areas present/flows under and parallel to freeway Upstream: Unconfined Downstream: Confined	Bridge	Widen bridge over Oso Creek to accommodate additional capacity	0.05	0.04	27	Upstream: 125 Downstream: 125	10-125	Rehabilitation: Aliso Creek (San Juan Watershed HUC 8)/ SAMP Area Preservation: Ferber Ranch (San Juan Creek Watershed HUC 10)	Measures BIO-10 and BIO-11 from Project C MND/FONSI
C-35 Aliso Creek (Drainage 3 in NES)	C/I-5	C3, C4	Aliso Creek-Frontal Gulf of Santa Catalina	San Juan	Perennial earthen-bottom channel with natural and grouted riprap banks/ unvegetated within impact areas/flows under freeway/concrete areas present under bridge Upstream: Aggraded/ Unconfined Channel Downstream: Eroded/Confined Channel	Bridge/2 wall piers	Widen road/extend wall piers	0.03	0	45	Upstream: 50 Downstream: 10	10-50	Rehabilitation: Aliso Creek (San Juan Watershed HUC 8)/ SAMP Area Preservation: Ferber Ranch (San Juan Creek Watershed HUC 10)	Measures BIO-10 and BIO-11 from Project C MND/FONSI
F-25 Santiago Creek	F North/ SR-55	F11, F12	Santiago Creek	Santa Ana	Perennial earthen channel/flows under freeway Upstream: Confined channel/wetland/riparian areas present Downstream: Confined/ unvegetated/rock-lined on east bank	Bridge/4 wall piers	Widen road/bridge by extending wall piers; assumed permanent impacts include area under bridge and 15' upstream from bridge deck to include any potential grading, riprap, or concrete	0.003	0.14	25	Upstream: 160 Downstream: 160	160	Rehabilitation: Aliso Creek (San Juan Watershed HUC 8)	Minimize impacts to riparian areas by shifting impacts to unvegetated areas; remove invasive species; restore slopes with native vegetation. Potential downstream erosion/ sedimentation issues to address.

ENCLOSURE 5: Table 2: Potential Permanent Impacts by Feature

Feature Name	Project/ Route	Impact Figure	HUC 10	HUC 8	Channel Description/ Location Relative to Freeway	Existing Structure to Be Modified	Anticipated Proposed Activity	Estimated Perm Impacts Non-Wetland Waters of the U.S. (acres)	Estimated Perm Impacts Wetland Waters of the U.S. (acres)	Estimated Impacts Waters of the U.S. (linear feet)	Estimated Width at Impact Location	Feature Width (feet)	Current Proposed Mitigation	Potential Minimization Measure
G-1 Santa Ana River	G South/ SR-57	G13	Lower Santa Ana River	Santa Ana	Confined channel/ perennial/earthen bottom with riprap and concrete banks/unvegetated/ routinely maintained/flows under freeway	Bridge/3 rectangular piers	Widen road/bridge by extending rectangular piers (northbound only)/assumed permanent impacts to include 35'-foot area under bridge and 25' upstream from bridge deck to include any potential grading, riprap, or concrete	0.62	0	69	294	294	Rehabilitation: Aliso Creek (San Juan Watershed HUC 8)	None; maintained channel; impacts minimal.
G-11 Tonner Canyon	G North/ SR-57	G2	Lower San Gabriel River	San Gabriel	Unconfined earthen channel/perennial/ wetland/riparian areas present/flows under freeway	Bridge/ multiple cylindrical piers	Widen road/bridge by adding piers (northbound only)/assumed permanent impacts include area under bridge and 10-18' upstream from bridge deck to include any potential grading, riprap, or concrete	0.08	0.01	96	40	40	Rehabilitation: Aliso Creek (San Juan Watershed HUC 8)	Remove invasive species.
I-6 Carbon Canyon Diversion Channel	I/SR-91	I3, I4	Lower Santa Ana River	Santa Ana	Confined channel/ perennial/earthen bottom with riprap banks/concrete aprons/unvegetated/ routinely maintained/flows under freeway	Trapezoid box culvert	Widen road by extending box culvert and concrete wing walls/apron/assumed permanent impact area includes the earthen portion 30' upstream and downstream from concrete apron	0.06	0	63	44	44	Rehabilitation: Aliso Creek (San Juan Watershed HUC 8)	None; maintained channel; impacts minimal.
I-10 Santa Ana River	I/SR-91	I6	Lower Santa Ana River	Santa Ana	2 channels present/ confined earthen bottoms/rip-rap slopes/unvegetated/ routinely maintained/flows under freeway	Bridge/13 wall piers	Widen road/bridge by extending wall piers	0.16[5]	0	20[3]	180, 385	180-385	Rehabilitation: Aliso Creek (San Juan Watershed HUC 8)	None; maintained channel; impacts minimal.
4-1 Los Alamitos Channel	K/I-405	6-14, 6-15, 6-17, 6-22, 6-23	Lower San Gabriel River	San Gabriel	Earthen channel; flows under freeway	Double box culvert	Widen road/lengthen box culvert	0.06	0	84	220	220	Rehabilitation: Aliso Creek (San Juan Watershed HUC 8)	Measures BIO-2 and BIO-3 from Project K EIR/EIS
7-2 Montecito Channel	K/I-405	6-14, 6-23	Lower San Gabriel River	San Gabriel	Concrete east of I-405/earthen west of I-405/flows under freeway and 2 on/off ramps	Box culverts	Relocate or Underground AND/OR widen road/ lengthen box culvert	0.42	0	1,085	25	3-25	Rehabilitation: Aliso Creek (San Juan Watershed HUC 8)	Measures BIO-2 and BIO-3 from Project K EIR/EIS
10-1 Bolsa Chica Channel	K/I-405	6-12, 6-21	Bolsa Chica - Frontal HH	Santa Ana	Concrete north of I-405/ concrete, earthen, rip rap south of I-405; flows under freeway	Triple box culvert	Widen road/lengthen box culvert	0.04	0	49	38	38	Rehabilitation: Aliso Creek (San Juan Watershed HUC 8)	Measures BIO-2 and BIO-3 from Project K EIR/EIS

ENCLOSURE 5: Table 2: Potential Permanent Impacts by Feature

Feature Name	Project/ Route	Impact Figure	HUC 10	HUC 8	Channel Description/ Location Relative to Freeway	Existing Structure to Be Modified	Anticipated Proposed Activity	Estimated Perm Impacts Non-Wetland Waters of the U.S. (acres)	Estimated Perm Impacts Wetland Waters of the U.S. (acres)	Estimated Impacts Waters of the U.S. (linear feet)	Estimated Width at Impact Location	Feature Width (feet)	Current Proposed Mitigation	Potential Minimization Measure
25-4 Fountain Valley Channel	K/I-405	6-5	Lower Santa Ana River	Santa Ana	Earthen, rock, and rip rap channel; flows under freeway and under 2 on/off ramps	Double box culvert	Widen road/lengthen box culvert	0.06	0	120	9	9	Rehabilitation: Aliso Creek (San Juan Watershed HUC 8)	Measures BIO-2 and BIO-3 from Project K EIR/EIS
27-1 Greenville Banning Channel	K/I-405	6-4	Lower Santa Ana River	Santa Ana	Earthen, rock, and rip rap channel; flows under freeway	Double box culvert	Widen road/lengthen box culvert	0.11	0	170	30	30	Rehabilitation: Aliso Creek (San Juan Watershed HUC 8)	Measures BIO-2 and BIO-3 from Project K EIR/EIS
L-45 Old San Diego Creek	L/I-405	L8, L9	San Diego Creek[1]	Santa Ana	Earthen trapezoidal channel with concrete box culverts; riprap banks; perennial; unvegetated	Box culvert	Widen road/lengthen box culvert on the northbound side only; assumed permanent impact includes extending existing concrete pad 15' upstream	0.02	0	15	24	24-37	SAMP Area Enhancement: Agua Chinon (San Diego Creek HUC 10)	None; maintained channel; impacts minimal.
L-47 San Diego Creek	L/I-405	L8	San Diego Creek[1]	Santa Ana	Confined earthen channel/riprap banks/ perennial/upstream unvegetated and maintained/downstream wetland/riparian areas present	Bridge/2 wall piers	Widen road/bridge by extending wall piers on the northbound side only; assumed permanent impact extends 15' upstream from the bridge deck	0.05	0.01	17	160	148-160	SAMP Area Enhancement: Agua Chinon (San Diego Creek HUC 10)	Downstream supports riparian vegetation; minimize impacts to downstream areas by shifting impacts upstream, which is regularly maintained, where possible.
Total Named Earthen Features								**1.97**	**0.20**	**2,068**				
B-20	B/I-5	B17	San Diego Creek[1]	Santa Ana	Earthen ditch/ unvegetated/parallel to freeway	N/A	Relocate or Underground	0.14	0	559	11	11	None if relocated; 1:1 if piped underground SAMP Area Enhancement: Agua Chinon (San Diego Creek HUC 10)	None identified
B-30	B/I-5	B13	San Diego Creek[1]	Santa Ana	Earthen ditch/unvegetated/ gore area	N/A	Relocate or Underground	0.04	0	541	3-4	3-4	None if relocated; 1:1 if piped underground SAMP Area Enhancement: Agua Chinon (San Diego Creek HUC 10)	None identified

ENCLOSURE 5: Table 2: Potential Permanent Impacts by Feature

Feature Name	Project/ Route	Impact Figure	HUC 10	HUC 8	Channel Description/ Location Relative to Freeway	Existing Structure to Be Modified	Anticipated Proposed Activity	Estimated Perm Impacts Non-Wetland Waters of the U.S. (acres)	Estimated Perm Impacts Wetland Waters of the U.S. (acres)	Estimated Impacts Waters of the U.S. (linear feet)	Estimated Width at Impact Location	Feature Width (feet)	Current Proposed Mitigation	Potential Minimization Measure
B-35	B/I-5	B7	San Diego Creek[1]	Santa Ana	Earthen ditch/unvegetated/ gore area	N/A	Relocate or Underground	0.04	0	274	5-6	5-6	None if relocated; 1:1 if piped underground SAMP Area Enhancement: Agua Chinon (San Diego Creek HUC 10)	None identified
F-24	F North/ SR-55	F10	Lower Santa Ana River	Santa Ana	Earthen/concrete v-ditch/assumed flows under freeway	Assumed culvert	Widen road/lengthen culvert	0.0003	0	6	2	2	1:1 if impact occurs within earthen area-Rehabilitation: Aliso Creek (San Juan Watershed HUC 8); none if impact occurs within concrete area	Earthen area - none identified; concrete area - N/A
I-5	I/SR-91	I4	Lower Santa Ana River	Santa Ana	Earthen ditch/unvegetated/ gore area	N/A	Relocate or Underground	0.003	0	144	1	1	None if relocated; 1:1 if piped underground-Rehabilitation: Aliso Creek (San Juan Watershed HUC 8)	None identified
I-7	I/SR-91	I4	Lower Santa Ana River	Santa Ana	Earthen ditch/unvegetated/ gore area	N/A	Relocate or Underground	0.02	0	182	4	4	None if relocated; 1:1 if piped underground-Rehabilitation: Aliso Creek (San Juan Watershed HUC 8)	None identified
L-1	L/I-405	L28, L29	San Diego Creek[1]	Santa Ana	Earthen ditch/unvegetated/ parallel to freeway	N/A	Relocate or Underground	0.01	0	333	1-3	1-3	None if relocated; 1:1 if piped underground-SAMP Area Enhancement: Agua Chinon (San Diego Creek HUC 10)	None identified
L-17	L/I-405	L22	San Diego Creek[1]	Santa Ana	Earthen ditch/unvegetated/ gore area	N/A	Relocate or Underground	0.004	0	168	1	1	None if relocated; 1:1 if piped underground-SAMP Area Enhancement: Agua Chinon (San Diego Creek HUC 10)	None identified
L-30	L/I-405	L20–L22	San Diego Creek[1]	Santa Ana	Earthen ditch/herbaceous vegetation present/ gore area	N/A	Relocate or Underground	0.07	0	886	1-9	1-9	None if relocated; 1:1 if piped underground-SAMP Area Enhancement: Agua Chinon (San Diego Creek HUC 10)	None identified

ENCLOSURE 5: Table 2: Potential Permanent Impacts by Feature

Feature Name	Project/ Route	Impact Figure	HUC 10	HUC 8	Channel Description/ Location Relative to Freeway	Existing Structure to Be Modified	Anticipated Proposed Activity	Estimated Perm Impacts Non-Wetland Waters of the U.S. (acres)	Estimated Perm Impacts Wetland Waters of the U.S. (acres)	Estimated Impacts Waters of the U.S. (linear feet)	Estimated Width at Impact Location	Feature Width (feet)	Current Proposed Mitigation	Potential Minimization Measure
L-65	L/I-405	L26	San Diego Creek[1]	Santa Ana	Earthen ditch/unvegetated/ gore area	N/A	Relocate or Underground	0.01	0	217	1-2	1-2	None if relocated; 1:1 if piped underground- SAMP Area Enhancement: Agua Chinon (San Diego Creek HUC 10)	None identified
L-66	L/I-405	L26	San Diego Creek[1]	Santa Ana	Earthen ditch/unvegetated/ gore area	N/A	Relocate or Underground	0.001	0	17	2	2	None if relocated; 1:1 if piped underground- SAMP Area Enhancement: Agua Chinon (San Diego Creek HUC 10)	None identified
Total Earthen Ditches								**0.34**	**0**	**3,327**				
E-6 Constructed Detention Basin	E/SR-22	E3 and E4	Bolsa Chica Channel-Frontal Huntington Harbour	Santa Ana	Earthen detention basin/maintained/gore area	N/A	Relocate **OR** Fill w/ Justification	0.19	0	N/A	N/A – Basin	N/A – Basin	None if relocated; 1:1 if permanently impacted- None if relocated; 1:1 if piped underground- Rehabilitation: Aliso Creek (San Juan Watershed HUC 8)	N/A – man-made basin anticipated to be replaced or will be mitigated
E-14 Constructed Detention Basin	E/SR-22	E6	Bolsa Chica Channel-Frontal Huntington Harbour	Santa Ana	Earthen detention basin/maintained/gore area	N/A	Relocate **OR** Fill w/ Justification	0.07	0	N/A	N/A – Basin	N/A – Basin	None if relocated; 1:1 if permanently impacted- None if relocated; 1:1 if piped underground- Rehabilitation: Aliso Creek (San Juan Watershed HUC 8)	N/A – man-made basin anticipated to be replaced or will be mitigated
Total Earthen Detention Basins								**0.26**	**0**	**N/A**				
Total All Feature Types								**2.57**	**0.20**	**5,395**				

Notes:

1 Located within the San Diego Creek Watershed SAMP.

2 Located within the San Juan Creek SAMP

3 Estimated using Project I eastbound (previously approved/permitted) acreage number and buffering by 20%. Linear feet were adjusted to match the target acreage.

Table 6. Potential Temporary Jurisdictional Impacts by Feature

Feature	Project/ Route	Impact Figure	HUC 10	HUC 8	Channel Description/ Location Relative to Freeway	Existing Structure	Anticipated Proposed Activity	Temporary Impact Description	Estimated Temp Impacts Non-Wetland Waters of the U.S. (acres)	Estimated Temp Impacts Wetland Waters of the U.S. (acres)	Estimated Temp Impacts Waters of the U.S. (linear feet)
Named Earthen Features											
A-21 Santiago Creek	A/I-5	A4	Santiago Creek	Santa Ana	Confined channel/ perennial/earthen bottom with partial concrete and riprap banks/ unvegetated/flows under freeway	Bridge/1 wall pier or multiple cylindrical piers are present	Widen road/bridge by adding cylindrical piers or extending wall piers; assumed permanent impacts include area under bridge and 75-80' upstream and downstream from bridge deck to include any potential grading, riprap, or concrete – any temporary impacts would occur beyond this estimated permanent footprint.	Likely substantial access impacts but access generally unknown; may have to drive equipment through a significant portion of the channel. Potential water diversion/water displacement activities.	0.36	0	300
C-9 Oso Creek (Drainage 3 in NES)	C/I-5	C14, C15	San Juan Creek[2]	San Juan	Perennial earthen channel with abundant riprap/ wetland/riparian areas present/flows under and parallel to freeway Upstream: Unconfined Downstream: Confined	Bridge	Widen bridge	Construction access	0.05	0	93
F-25 Santiago Creek	F North/ SR-55	F11, F12	Santiago Creek	Santa Ana	Perennial earthen channel/flows under freeway Upstream: Confined channel/wetland/riparian areas present Downstream: Confined/ unvegetated/rock-lined on east bank	Bridge/4 wall piers	Widen road/bridge by extending wall piers; assumed permanent impacts include area under and 15' upstream from bridge deck to include any potential grading, riprap, or concrete – any temporary impacts would occur beyond this estimated permanent footprint.	Access does not appear to be a significant issue; however, temporary impacts including restoring vegetation are anticipated. Potential water diversion/water displacement activities.	0.61	0.16	158
G-1 Santa Ana River	G South/ SR-57	G13	Lower Santa Ana River	Santa Ana	Confined channel/ perennial/earthen bottom with riprap and concrete banks/unvegetated/ routinely maintained/flows under freeway	Bridge/3 rectangular piers	Widen road/bridge by extending rectangular piers (northbound only)/ assumed permanent impacts to include 35'-foot area under bridge and 25' upstream from bridge deck to include any potential grading, riprap, or concrete – any temporary impacts would occur beyond this estimated permanent footprint.	No access issues; ramps present; unvegetated/routinely maintained. Potential water diversion/water displacement activities.	0.71	0	82
G-11 Tonner Canyon	G North/ SR-57	G2	Lower San Gabriel River	San Gabriel	Unconfined earthen channel/perennial/ wetland/riparian areas present/flows under freeway	Bridge/ multiple cylindrical piers	Widen road/bridge by adding piers (northbound only)/assumed permanent impacts include area under bridge and 10-18' upstream from bridge deck to include any potential grading, riprap, or concrete – any temporary impacts would occur beyond this estimated permanent footprint.	Access does not appear to be a significant issue; however, minor temporary impacts including the need to restore vegetation is anticipated. Potential water diversion/water displacement activities.	0.03	0.003	30

ENCLOSURE 6: Table 3: Potential Temporary Impacts by Feature

Feature	Project/ Route	Impact Figure	HUC 10	HUC 8	Channel Description/ Location Relative to Freeway	Existing Structure	Anticipated Proposed Activity	Temporary Impact Description	Estimated Temp Impacts Non-Wetland Waters of the U.S. (acres)	Estimated Temp Impacts Wetland Waters of the U.S. (acres)	Estimated Temp Impacts Waters of the U.S. (linear feet)
I-6 Carbon Canyon Diversion Channel	I/SR-91	I3, I4	Lower San Gabriel River	San Gabriel	Confined channel/ perennial/earthen bottom with riprap banks/concrete aprons/unvegetated/ routinely maintained/flows under freeway	Trapezoid box culvert	Widen road by extending box culvert/and concrete wing walls/apron; assumed permanent impact area includes the earthen portion 30' upstream and downstream from the concrete apron and the temporary impacts include areas within the concrete box culvert footprint.	Structures may occur within the concrete box culvert footprint. No access issues; ramps present; unvegetated/routinely maintained Potential water diversion/water displacement activities.	0.25	0	250
I-10 Santa Ana River	I/SR-91	I6	Lower Santa Ana River	Santa Ana	2 channels present/ confined earthen bottoms/rip-rap slopes/unvegetated/ routinely maintained/flows under freeway	Bridge/13 wall piers	Widen road/bridge by extending wall piers (eastbound only); permanent impact numbers (acreage and linear feet) were estimated using Project I eastbound (previously approved/permitted) numbers and buffering by 20%. Any temporary impacts would occur beyond this estimated permanent footprint.	No access issues; ramps present; unvegetated/routinely maintained Potential water diversion/water displacement activities.	2.45	0	480
4-1 Los Alamitos Channel	K/I-405	6-14, 6-15, 6-17, 6-22, 6-23	Lower San Gabriel River	San Gabriel	Earthen channel; flows under freeway	Double box culvert	Widen road/lengthen box culvert	Source: Project K Docs Assumed temporary access and/or construction impacts and/or dewatering/diversion activities.	0.03	0	14
7-2 Montecito Channel	K/I-405	6-14, 6-23	Lower San Gabriel River	San Gabriel	Concrete east of I-405/earthen west of I-405/flows under freeway and 2 on/off ramps	Box culverts	Relocate or Underground AND/OR widen road/ lengthen box culvert	Source: Project K Docs Assumed temporary access and/or construction impacts and/or dewatering/diversion activities.	0.03	0	79
10-1 Bolsa Chica Channel	K/I-405	6-12, 6-21	Bolsa Chica - Frontal HH	Santa Ana	Unclear if earthen or concrete north of I-405 /concrete, earthen, rip rap south of I-405; flows under freeway	Triple box culvert	Widen road/lengthen box culvert	Source: Project K Docs Assumed temporary access and/or construction impacts and/or dewatering/diversion activities.	0.12	0	140
25-4 Fountain Valley Channel	K/I-405	6-5	Lower Santa Ana River	Santa Ana	Earthen, rock, and rip rap channel; flows under freeway and under 2 on/off ramps	Double box culvert	Widen road/lengthen box culvert	Source: Project K Docs Assumed temporary access and/or construction impacts and/or dewatering/diversion activities.	0.06	0	40
27-1 Greenville Banning Channel	K/I-405	6-4	Lower Santa Ana River	Santa Ana	Earthen, rock, and rip rap channel; flows under freeway	Double box culvert	Widen road/lengthen box culvert	Source: Project K Docs Assumed temporary access and/or construction impacts and/or dewatering/diversion activities.	0.01	0	21
28-2 Gisler Channel	K/I-405	6-3	Lower Santa Ana River	Santa Ana	Concrete west of Fairview Rd/earthen east of Fairview Rd/flows under Fairview Rd parallel to freeway	Box culvert	Temporary construction impacts	Source: Project K Docs Assumed temporary access and/or construction impacts and/or dewatering/diversion activities.	0.46	0	830

ENCLOSURE 6: Table 3: Potential Temporary Impacts by Feature

Feature	Project/ Route	Impact Figure	HUC 10	HUC 8	Channel Description/ Location Relative to Freeway	Existing Structure	Anticipated Proposed Activity	Temporary Impact Description	Estimated Temp Impacts Non-Wetland Waters of the U.S. (acres)	Estimated Temp Impacts Wetland Waters of the U.S. (acres)	Estimated Temp Impacts Waters of the U.S. (linear feet)
L-45 Old San Diego Creek	L/I-405	L8, L9	San Diego Creek[1]	Santa Ana	Earthen trapezoidal channel with concrete box culverts; riprap banks; perennial; unvegetated	Box culvert	Widen road/lengthen box culvert on the northbound side only; assumed permanent impact includes extending existing concrete pad 15'; assumed temporary impacts to concrete areas includes extension of box culvert over existing concrete pad and temporary construction access within the concrete pad; assumed temporary construction impacts to earthen bottom area.	Lengthen culvert over existing concrete box; temporary construction impacts (concrete and earthen areas). Potential water diversion/water displacement activities.	0.03	0	60
L-47 San Diego Creek	L/I-405	L8	San Diego Creek[1]	Santa Ana	Confined earthen channel/riprap banks/ perennial/upstream unvegetated and maintained/downstream wetland/riparian areas present	Bridge/2 wall piers	Widen road/bridge by extending wall piers on the northbound side only; assumed permanent impact extends 15' upstream from the bridge deck; assumed temporary impacts occur under and extend beyond the existing bridge deck	Temporary construction impacts. Potential water diversion/water displacement activities.	0.38	0.01	107
Named Concrete Channels											
B-5 Bee Canyon Wash	B/I-5	B23	San Diego Creek[1]	Santa Ana	Concrete box channel/flows under freeway/northern channel supports willows	Triple box culvert	Widen road/lengthen box culvert	Impact numbers are estimated based on fill or covering the open concrete channel. Additional impacts may occur for staging and potential water diversion/water displacement activities.	0.03	0	65
B-21 Central Irvine Channel	B/I-5	B11–B13	San Diego Creek[1]	Santa Ana	Concrete box channel/flows under freeway/flows directly into B-22, Peters Canyon Channel	Box culvert	Widen road/lengthen box culvert	Impact numbers are estimated based on fill or covering the open concrete channel. Additional impacts may occur for staging and potential water diversion/water displacement activities.	0.01	0	13
B-22 Peters Canyon Wash	B/I-5	B11	San Diego Creek[1]	Santa Ana	Concrete box channel with low-flow channel/flows under freeway	Box culvert	Widen road/ lengthen box culvert	Impact numbers are estimated based on fill or covering the open concrete channel. Additional impacts may occur for staging and potential water diversion/water displacement activities.	0.01	0	5
B-33 El Modena\ Irvine Channel	B/I-5	B8 and B9	San Diego Creek[1]	Santa Ana	Concrete channel with low-flow channel (trapezoidal north of I-5 and box south of I-5)	Box culvert	Widen road/ lengthen box culvert	Impact numbers are estimated based on fill or covering the open concrete channel. Additional impacts may occur for staging and potential water diversion/water displacement activities.	0.01	0	10
F-48 Lane Channel	F South/ SR-55	F28–F30	San Diego Creek[1]	Santa Ana	Concrete trapezoidal channel/flows perpendicular and under freeway, then parallel to freeway	Double box culvert	Relocate or Underground AND/OR widen road/ lengthen box culvert	Impact numbers are estimated based on fill or covering the open concrete channel. Additional impacts may occur for staging and potential water diversion/water displacement activities.	0.39	0	1210

ENCLOSURE 6: Table 3: Potential Temporary Impacts by Feature

Feature	Project/ Route	Impact Figure	HUC 10	HUC 8	Channel Description/ Location Relative to Freeway	Existing Structure	Anticipated Proposed Activity	Temporary Impact Description	Estimated Temp Impacts Non-Wetland Waters of the U.S. (acres)	Estimated Temp Impacts Wetland Waters of the U.S. (acres)	Estimated Temp Impacts Waters of the U.S. (linear feet)
16-2 Anaheim Barber City Channel	K/I-405	6-11	Bolsa Chica - Frontal HH	Santa Ana	Concrete box channel; flows under freeway	Quadruple box culvert	Widen road/lengthen box culvert	Source: Project K Docs Assume impact numbers include fill or covering the open concrete channel and any additional impacts for staging and potential water diversion/water displacement activities.	0.17	0	176
16-3 Westminster Avenue Channel	K/I-405	6-11	Bolsa Chica - Frontal HH	Santa Ana	Concrete channel; flows parallel to freeway	N/A	Pipe Underground	Source: Project K Docs Assume impact numbers include fill or covering the open concrete channel and any additional impacts for staging and potential water diversion/water displacement activities.	0.12	0	1571
18-4 Westminster Channel	K/I-405	6-9, 6-10	Bolsa Chica - Frontal HH	Santa Ana	Concrete box channel; flows under freeway	Double box culvert	Widen road/lengthen box culvert AND/OR Pipe Underground	Source: Project K Docs Assume impact numbers include fill or covering the open concrete channel and any additional impacts for staging and potential water diversion/water displacement activities.	0.20	0	255
21-2 East Garden Grove Wintersburg Channel	K/I-405	6-8	Bolsa Chica - Frontal HH	Santa Ana	Concrete box channel; flows under freeway	Triple box culvert	Widen road/lengthen box culvert	Source: Project K Docs Assume impact numbers include fill or covering the open concrete channel and any additional impacts for staging and potential water diversion/water displacement activities.	0.14	0	151
23-1 Ocean View Channel	K/I-405	6-7	Bolsa Chica - Frontal HH	Santa Ana	Concrete box channel; flows under freeway	Double box culvert	Widen road/lengthen box culvert	Source: Project K Docs Assume impact numbers include fill or covering the open concrete channel and any additional impacts for staging and potential water diversion/water displacement activities.	0.60	0	838
26-1 Santa Ana River	K/I-405	6-4, 6-5	Lower Santa Ana River	Santa Ana	Concrete box channel; flows under freeway	Bridge with 3 wall piers	Widen road/wall piers	Source: Project K Docs Assume impact numbers include fill or covering the open concrete channel and any additional impacts for staging and potential water diversion/water displacement activities.	3.86	0	810
Unnamed Concrete Features											
A-2	A/I-5	A2 and A3	Lower Santa Ana River	Santa Ana	Concrete box channel/spaghetti area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.12	0	624
A-5	A/I-5	A3	Lower Santa Ana River	Santa Ana	Concrete trapezoidal channel/gore area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.02	0	103
A-6	A/I-5	A3 and A4	Lower Santa Ana River	Santa Ana	Concrete trapezoidal channel/spaghetti area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.16	0	856
A-17	A/I-5	A12 and A13	San Diego Creek[1]	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.02	0	951

ENCLOSURE 6: Table 3: Potential Temporary Impacts by Feature

Feature	Project/ Route	Impact Figure	HUC 10	HUC 8	Channel Description/ Location Relative to Freeway	Existing Structure	Anticipated Proposed Activity	Temporary Impact Description	Estimated Temp Impacts Non-Wetland Waters of the U.S. (acres)	Estimated Temp Impacts Wetland Waters of the U.S. (acres)	Estimated Temp Impacts Waters of the U.S. (linear feet)
A-18	A/I-5	A13	San Diego Creek[1]	Santa Ana	Concrete box channel/flows under freeway	Double box culvert	Widen road/lengthen box culvert	Impact numbers are estimated based on fill or covering the open concrete channel. Additional impacts may occur for staging and potential water diversion/water displacement activities.	0.003	0	11
A-19	A/I-5	A13	San Diego Creek[1]	Santa Ana	Concrete v-ditch/adjacent to freeway in a parking lot	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.001	0	38
B-1	B/I-5	B25	San Diego Creek[1]	Santa Ana	Concrete v-ditch/ parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.03	0	474
B-2	B/I-5	B25	San Diego Creek[1]	Santa Ana	Concrete v-ditch/gore area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.001	0	45
B-3	B/I-5	B25	San Diego Creek[1]	Santa Ana	Concrete v-ditch/gore area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.003	0	127
B-4	B/I-5	B23-B25	San Diego Creek[1]	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.18	0	2563
B-9	B/I-5	B23	San Diego Creek[1]	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.003	0	69
B-10	B/I-5	B24 and B25	San Diego Creek[1]	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.08	0	1727
B-11	B/I-5	B21 and B22	San Diego Creek[1]	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.04	0	785
B-14 Marshburn Channel	B/I-5	B20 and B21	San Diego Creek[1]	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.02	0	423
B-15	B/I-5	B17–B20	San Diego Creek[1]	Santa Ana	Concrete trapezoidal channel/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.05	0	531
B-18	B/I-5	B17	San Diego Creek[1]	Santa Ana	Concrete v-ditch/gore area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.04	0	195
B-19	B/I-5	B17	San Diego Creek[1]	Santa Ana	Concrete v-ditch/gore area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.004	0	175
B-25	B/I-5	B10	San Diego Creek[1]	Santa Ana	Concrete storm drain inlet/adjacent to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.001	0	2
B-28	B/I-5	B13	San Diego Creek[1]	Santa Ana	Concrete v-ditch/gore area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.05	0	684
B-29	B/I-5	B13	San Diego Creek[1]	Santa Ana	Concrete v-ditch/gore area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.01	0	86
B-34	B/I-5	B9	San Diego Creek[1]	Santa Ana	Concrete box channel/double box culvert/flows directly into B-33 - El Modena/Irvine Channel	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.01	0	13
B-41	B/I-5	B1, B2, and F21	San Diego Creek[1]	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.02	0	889
C-4 (Drainage 7 in NES)	C/I-5	C17, C18, and C18a	San Juan Creek[2]	San Juan	Concrete trapezoidal channel/perpendicular to freeway	N/A	Northbound off-ramp to Crown Valley Parkway will be realigned, so portion of existing trapezoidal channel will be covered by the realigned ramp.	See proposed activity	0.003	0	15

ENCLOSURE 6: Table 3: Potential Temporary Impacts by Feature

Feature	Project/ Route	Impact Figure	HUC 10	HUC 8	Channel Description/ Location Relative to Freeway	Existing Structure	Anticipated Proposed Activity	Temporary Impact Description	Estimated Temp Impacts Non-Wetland Waters of the U.S. (acres)	Estimated Temp Impacts Wetland Waters of the U.S. (acres)	Estimated Temp Impacts Waters of the U.S. (linear feet)
D-1 (Drainage 9B in NES)	C/I-5	C1	Aliso Creek-Frontal Gulf of Santa Catalina	San Juan	Concrete v-ditch/gore area	N/A	Northbound off-ramp to El Toro Road will be realigned, so existing ditch will be reconstructed outside the realigned ramp.	See proposed activity	0.002	0	15
D-2 (Drainage 9A in NES)	C/I-5	C1	Aliso Creek-Frontal Gulf of Santa Catalina	San Juan	Concrete v-ditch/gore area	N/A	A portion of the trap channel will be reconstructed due to the realignment of the northbound loop on-ramp from El Toro Road and so that a biofiltration swale can be utilized in this area.	See proposed activity	0.002	0	28
E-1	E/SR-22	E2	Bolsa Chica Channel-Frontal Huntington Harbour	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.002	0	87
E-3	E/SR-22	E1 and E2	Bolsa Chica Channel-Frontal Huntington Harbour	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.11	0	913
E-4	E/SR-22	E3 and E4	Bolsa Chica Channel-Frontal Huntington Harbour	Santa Ana	Concrete box channel/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.41	0	2998
E-5	E/SR-22	E4	Bolsa Chica Channel-Frontal Huntington Harbour	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.01	0	107
E-7	E/SR-22	E5	Bolsa Chica Channel-Frontal Huntington Harbour	Santa Ana	Concrete shallow box channel/freeway slope	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.001	0	21
E-11	E/SR-22	E6	Bolsa Chica Channel-Frontal Huntington Harbour	Santa Ana	Concrete v-ditch/gore area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.004	0	85
E-12	E/SR-22	E6	Bolsa Chica Channel-Frontal Huntington Harbour	Santa Ana	Concrete v-ditch/gore area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.03	0	482
F-1[3]	I/SR-91	F1	Lower Santa Ana River	Santa Ana	Concrete v-ditch/gore area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.03	0	548
F-3	F North/ SR-55	F1	Lower Santa Ana River	Santa Ana	Concrete v-ditch/gore area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.01	0	250
F-5	F North/ SR-55	F4	Lower Santa Ana River	Santa Ana	Concrete v-ditch/freeway slope	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.001	0	24

ENCLOSURE 6: Table 3: Potential Temporary Impacts by Feature

Feature	Project/ Route	Impact Figure	HUC 10	HUC 8	Channel Description/ Location Relative to Freeway	Existing Structure	Anticipated Proposed Activity	Temporary Impact Description	Estimated Temp Impacts Non-Wetland Waters of the U.S. (acres)	Estimated Temp Impacts Wetland Waters of the U.S. (acres)	Estimated Temp Impacts Waters of the U.S. (linear feet)
F-6	F North/ SR-55	F3 and F4	Lower Santa Ana River	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.02	0	272
F-8	F North/ SR-55	F4	Lower Santa Ana River	Santa Ana	Concrete/v-ditch/ perpendicular to freeway/unclear connection under freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.0004	0	16
F-9	F North/ SR-55	F4	Lower Santa Ana River	Santa Ana	Concrete box channel/flows under freeway	Double box culvert	Widen road/lengthen box culvert	Impact numbers are estimated based on fill or covering the open concrete channel. Additional impacts may occur for staging and potential water diversion/water displacement activities.	0.0004	0	2
F-13	F North/ SR-55	F6	Lower Santa Ana River	Santa Ana	Concrete v-ditch/gore area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.01	0	461
F-14	F North/ SR-55	F6 and F7	Lower Santa Ana River	Santa Ana	Concrete v-ditch/gore area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.004	0	170
F-15	F North/ SR-55	F6	Lower Santa Ana River	Santa Ana	Concrete v-ditch/ parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.004	0	78
F-16	F North/ SR-55	F6	Lower Santa Ana River	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.01	0	277
F-17	F North/ SR-55	F7	Lower Santa Ana River	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.001	0	16
F-18	F North/ SR-55	F7	Lower Santa Ana River	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.01	0	63
F-19	F North/ SR-55	F7	Lower Santa Ana River	Santa Ana	Concrete v-ditch/gore area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.03	0	689
F-26	F North/ SR-55	F13	Santiago Creek	Santa Ana	Concrete trapezoidal channel/flows under freeway	Box culvert	Widen road/lengthen box culvert	Impact numbers are estimated based on fill or covering the open concrete channel. Additional impacts may occur for staging and potential water diversion/water displacement activities.	0.001	0	3
F-34[4]	A/I-5	F21	San Diego Creek[1]	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.01	0	252
F-38	F South/ SR-55	F30, F31, and F33	San Diego Creek[1]	Santa Ana	Concrete channel/v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.22	0	1795
F-41	F South/ SR-55	F33	San Diego Creek[1]	Santa Ana	Concrete box channel/ spaghetti area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.09	0	229
F-42	F South/ SR-55	F23	San Diego Creek[1]	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.0001	0	4
F-43	F South/ SR-55	F31, F33, and L1	San Diego Creek[1]	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.02	0	422
F-44	F South/ SR-55	F33	San Diego Creek[1]	Santa Ana	Concrete v-ditch/spaghetti area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.10	0	488
F-45	F South/ SR-55	F33	San Diego Creek[1]	Santa Ana	Concrete v-ditch/spaghetti area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.01	0	276
F-46	F South/ SR-55	F33	San Diego Creek[1]	Santa Ana	Concrete v-ditch/spaghetti area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.06	0	384

ENCLOSURE 6: Table 3: Potential Temporary Impacts by Feature

Feature	Project/ Route	Impact Figure	HUC 10	HUC 8	Channel Description/ Location Relative to Freeway	Existing Structure	Anticipated Proposed Activity	Temporary Impact Description	Estimated Temp Impacts Non-Wetland Waters of the U.S. (acres)	Estimated Temp Impacts Wetland Waters of the U.S. (acres)	Estimated Temp Impacts Waters of the U.S. (linear feet)
F-47	F South/ SR-55	F33	San Diego Creek[1]	Santa Ana	Concrete v-ditch/spaghetti area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.002	0	85
F-49	F South/ SR-55	F30	San Diego Creek[1]	Santa Ana	Concrete v-ditch/gore area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.03	0	286
F-50	F South/ SR-55	F28	San Diego Creek[1]	Santa Ana	Concrete v-ditch/gore area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.09	0	857
G-7	G North/ SR-57	G5	Lower San Gabriel River	San Gabriel	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.002	0	50
G-12	G North/ SR-57	G2	Lower San Gabriel River	San Gabriel	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.001	0	57
G-15	G North/ SR-57	G1	Lower San Gabriel River	San Gabriel	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.01	0	248
G-16	G North/ SR-57	G5	Lower San Gabriel River	San Gabriel	Concrete v-ditch/gore area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.02	0	493
G-17	G North/ SR-57	G5	Lower San Gabriel River	San Gabriel	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.01	0	263
G-18	G North/ SR-57	G4 and G5	Lower San Gabriel River	San Gabriel	Concrete v-ditch/gore area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.06	0	1240
L-2	L/I-405	L28 and L29	San Diego Creek[1]	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.03	0	709
L-3	L/I-405	L28	San Diego Creek[1]	Santa Ana	Concrete v-ditch/gore area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.04	0	842
L-5	L/I-405	L27	San Diego Creek[1]	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.003	0	68
L-6	L/I-405	L25 and L26	San Diego Creek[1]	Santa Ana	Concrete v-ditch/gore area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.18	0	2749
L-7	L/I-405	L25	San Diego Creek[1]	Santa Ana	Concrete v-ditch/gore area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.04	0	820
L-8	L/I-405	L24	San Diego Creek[1]	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.003	0	39
L-9	L/I-405	L24	San Diego Creek[1]	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.002	0	64
L-21	L/I-405	L24 and L25	San Diego Creek[1]	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.04	0	585
L-23	L/I-405	L25	San Diego Creek[1]	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.01	0	545
L-24	L/I-405	L25, L26 and L30	San Diego Creek[1]	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.26	0	3494
L-26	L/I-405	L26	San Diego Creek[1]	Santa Ana	Concrete v-ditch/gore area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.01	0	477
L-33	L/I-405	L18	San Diego Creek[1]	Santa Ana	Concrete v-ditch/gore area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.01	0	404
L-43	L/I-405	L11–L13	San Diego Creek[1]	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.04	0	1560
L-51	L/I-405	L8	San Diego Creek[1]	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.01	0	609
L-52	L/I-405	L8	San Diego Creek[1]	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.01	0	556

ENCLOSURE 6: Table 3: Potential Temporary Impacts by Feature

Feature	Project/ Route	Impact Figure	HUC 10	HUC 8	Channel Description/ Location Relative to Freeway	Existing Structure	Anticipated Proposed Activity	Temporary Impact Description	Estimated Temp Impacts Non-Wetland Waters of the U.S. (acres)	Estimated Temp Impacts Wetland Waters of the U.S. (acres)	Estimated Temp Impacts Waters of the U.S. (linear feet)
L-53	L/I-405	L7	San Diego Creek[1]	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.01	0	524
L-56	L/I-405	L2–L4	San Diego Creek[1]	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.0002	0	8
L-57	L/I-405	L3	San Diego Creek[1]	Santa Ana	Concrete v-ditch/gore area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.03	0	659
L-61	L/I-405	L3	San Diego Creek[1]	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.0001	0	6
L-62	L/I-405	L3–L6	San Diego Creek[1]	Santa Ana	Concrete v-ditch/parallel to freeway	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.02	0	526
L-63	L/I-405	L3	San Diego Creek[1]	Santa Ana	Concrete v-ditch/gore area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.02	0	222
L-67	L/I-405	L26	San Diego Creek[1]	Santa Ana	Concrete v-ditch/gore area	N/A	Relocate or Underground	Entire feature assumed to be impacted.	0.05	0	751
Total All Feature Types									**14.22**	**0.17**	**166,216**

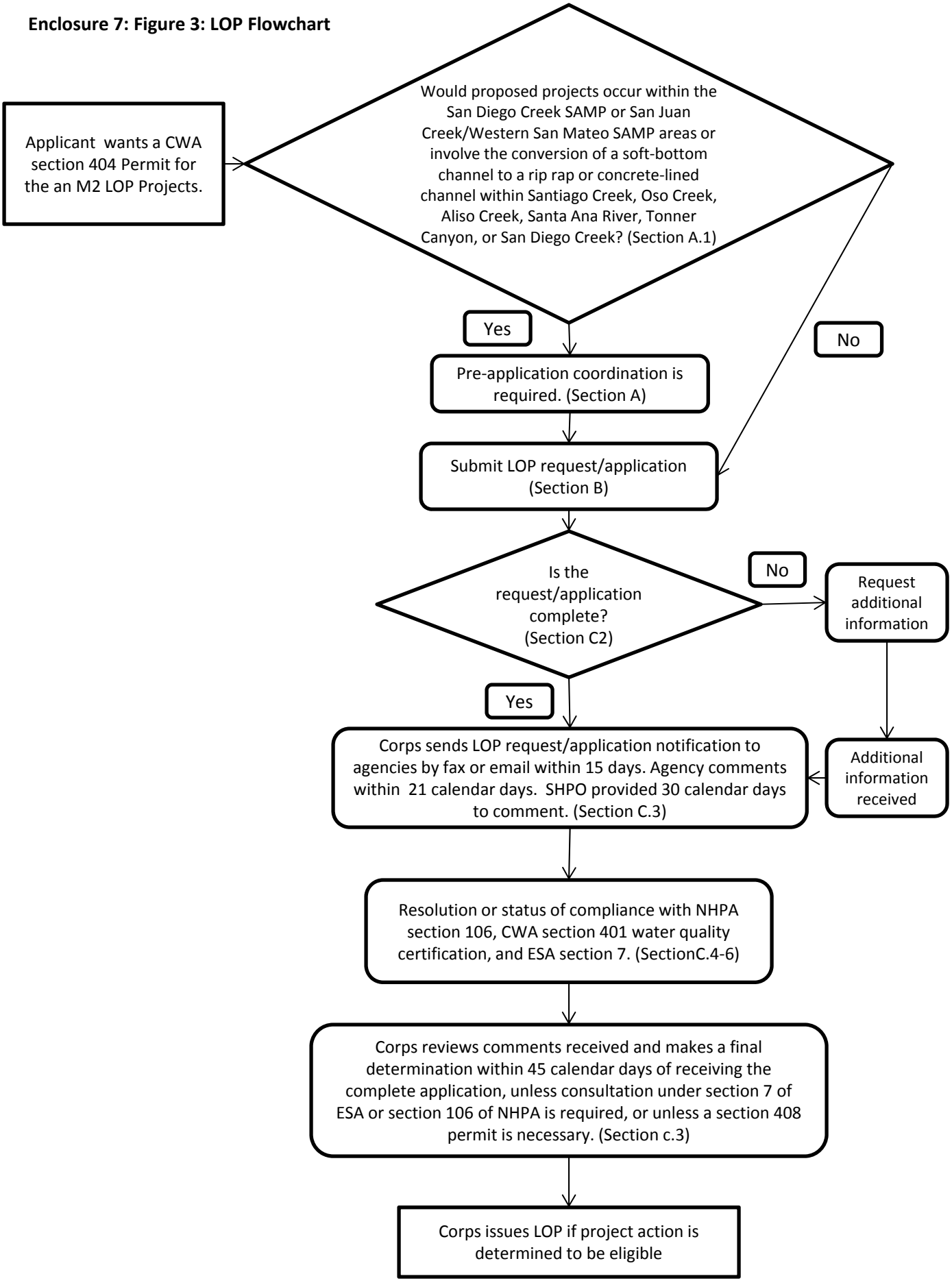
[1] Located within the San Diego Creek Watershed SAMP.

[2] Located within the San Juan Creek and Western San Mateo Creek Watershed SAMP.

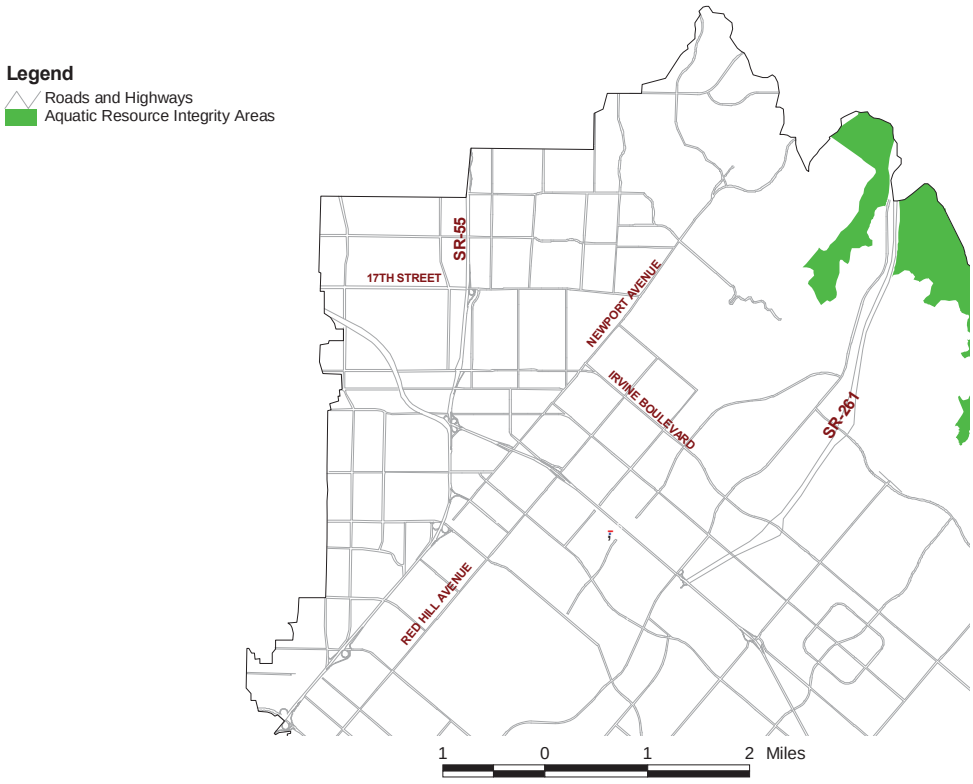
[3] Feature F-1 is concrete lined (impacts total 0.03 ac WoUS/not CDFW jurisdictional/548 linear feet) and is included in Project I totals (based on project schedules) (Lower Santa Ana Watershed).

[4] Feature F-34 is concrete lined (impacts total 0.006 ac WoUS/0.02 CDFW/252 linear feet) and is included in Project A totals (based on project schedules) (San Diego Creek Watershed).

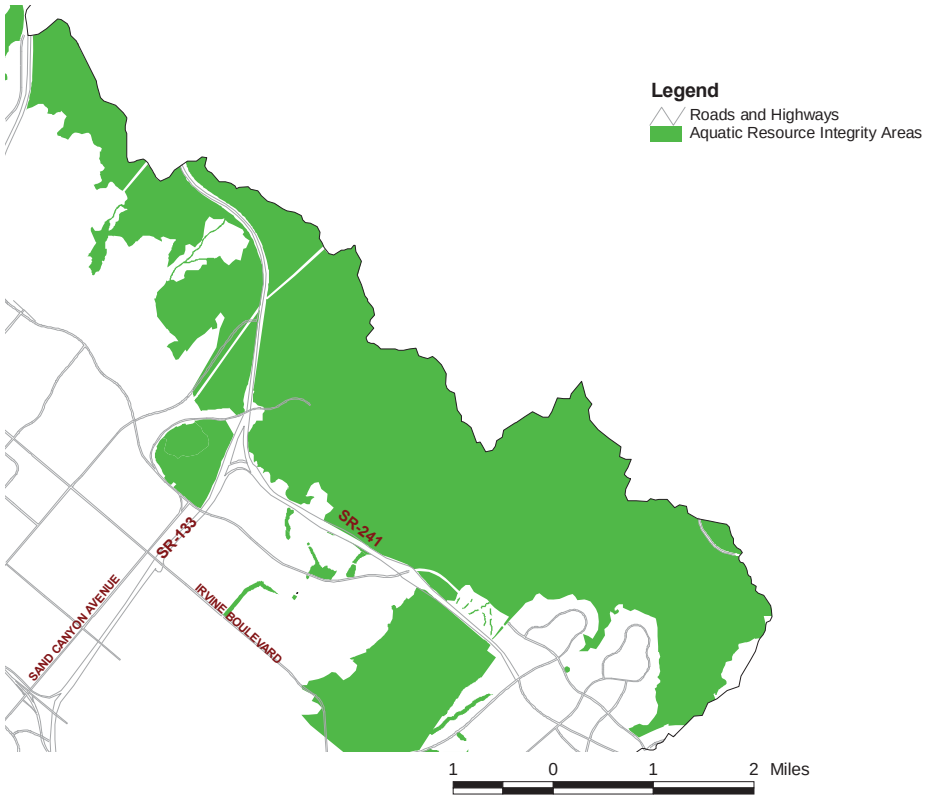
Enclosure 7: Figure 3: LOP Flowchart



Enclosure 8: SAMP Area Maps

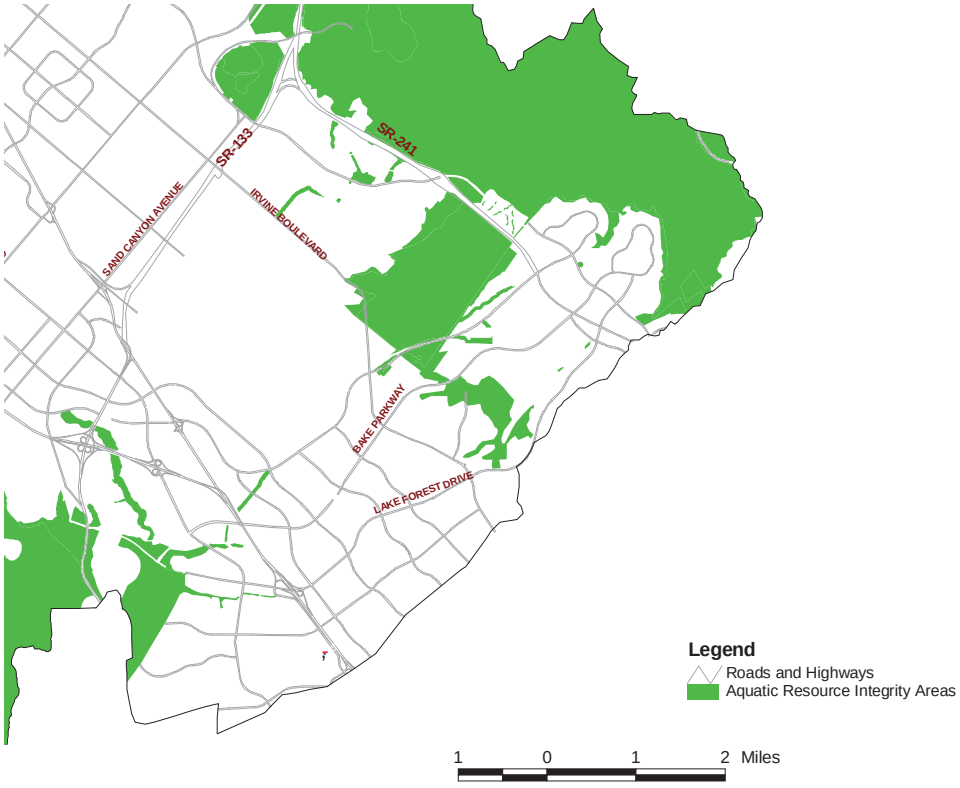


Detail of the aquatic resource integrity areas in the northwestern portion of the San Diego Creek Watershed.

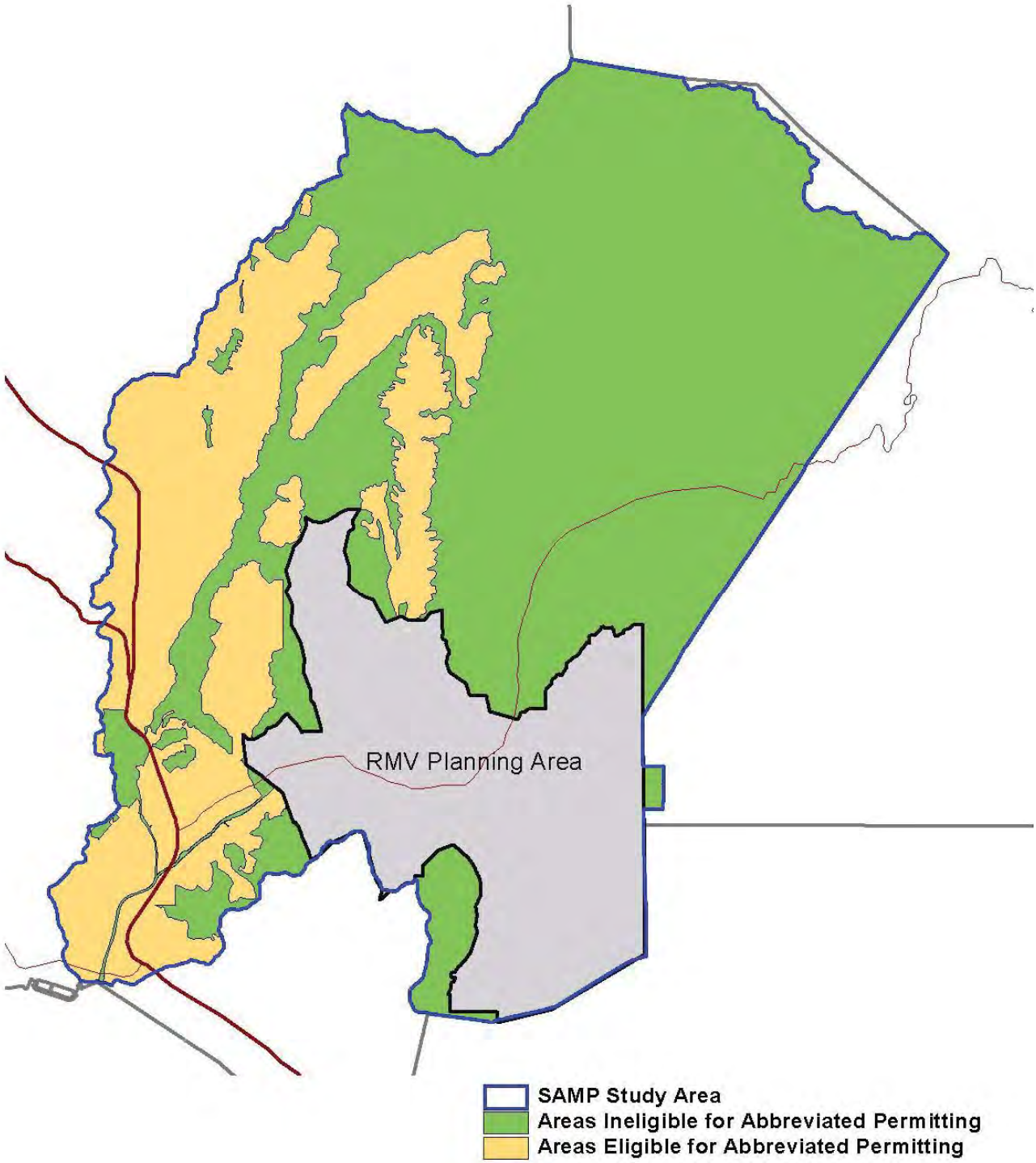


Detail of the aquatic resource integrity areas in the northeastern portion of the San Diego Creek Watershed.

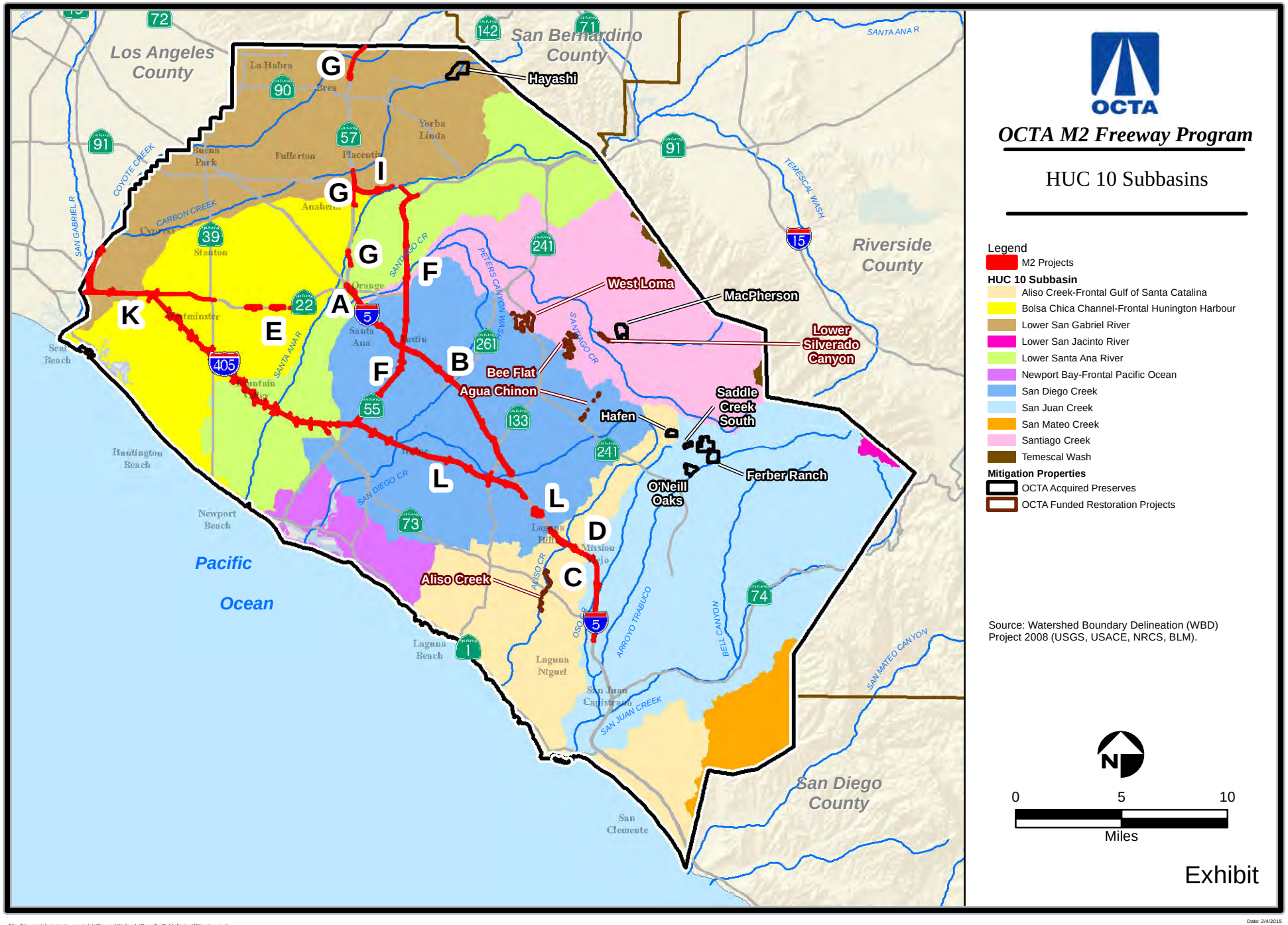
Detail of the aquatic resource integrity areas in the southwestern of the San Diego Creek Watershed.



Detail of the aquatic resource integrity areas in the southeastern portion of the San Diego Creek Watershed.



Areas outside of the RMV Planning Area eligible for abbreviated permitting.



File: S:\projects\mios\octa_nccp\plots\Figures\Wetlands\CorpsForPublicNotice\Mitigation.mxd

Date: 2/4/2015