



PUBLIC NOTICE

**U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT**

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APPLICATION FOR PERMIT Orange County Public Works Routine Channel and Bridge Maintenance Program

Public Notice/Application No.: SPL-2012-00817-SME

Project: Orange County Public Works Routine Channel and Bridge Maintenance Program

Comment Period: July 29, 2014 through August 28, 2014

Project Manager: Stephen Estes; 213-452-3660; Stephen.M.Estes@usace.army.mil

Applicant

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Contact

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Location

The proposed Orange County Public Works (OCPW) Routine Channel and Bridge Maintenance Program (Maintenance Program) would occur within flood management facilities and at bridges maintained by the County of Orange located throughout Orange County, California (Exhibits 1-12).

Activity

OCPW has applied for a Regional General Permit (RGP) to conduct routine maintenance activities within flood management facilities and at bridges located throughout the 13 watersheds of Orange County (Exhibits 1-12 and Tables 1 and 2). Maintenance activities would be performed on an as-needed basis and may include the regulated activities listed in Table 3. No permanent impacts to waters of the United States would be authorized by this RGP. The proposed maintenance activities would be expected to result in no more than minimal impacts to the aquatic environment, based on the existing conditions of the facilities and/or the lack of environmental resources. The purpose of the proposed maintenance program is to maintain the functional capacity of facilities, minimize the risk of damage, reduce flooding and erosion of adjacent roadways and properties during storm events, and perform bridge maintenance. For more information regarding the proposed OCPW Maintenance Program, please see page 3 of this Public Notice.

Interested parties are hereby notified that an application has been received for a Department of the Army permit for the activity described herein and shown on the attached drawings. We invite you to

review today's Public Notice and provide views on the proposed work. By providing substantive, site-specific comments to the U.S. Army Corps of Engineers (Corps) Regulatory Division, you provide information that supports the Corps' decision-making process. All comments received during the comment period become part of the record and will be considered in the decision. This permit will be issued, issued with Special Conditions, or denied under Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act. Comments should be mailed to:

U.S. Army Corps of Engineers
Regulatory Division
Attn: Stephen Estes
915 Wilshire Boulevard, Suite 930
Los Angeles, California 90017

Alternatively, comments can be sent electronically to Stephen.M.Estes@usace.army.mil.

The mission of the Corps Regulatory Program is to protect the Nation's aquatic resources while allowing reasonable development through fair, flexible, and balanced permit decisions. The Corps evaluates permit applications for essentially all construction activities that occur in the Nation's waters, including wetlands. The Regulatory Program in the Los Angeles District is executed to protect aquatic resources by developing and implementing short- and long-term initiatives to improve regulatory products, processes, program transparency, and customer feedback considering current staffing levels and historical funding trends.

Corps permits are necessary for any work, including construction and dredging, in the Nation's navigable waters and their tributaries. The Corps balances the reasonably foreseeable benefits and detriments of proposed projects and makes permit decisions that recognize the essential values of the Nation's aquatic ecosystems to the general public, as well as the property rights of private citizens who want to use their land. The Corps strives to make its permit decisions in a timely manner that minimizes impacts to the regulated public.

During the permit process, the Corps considers the views of other Federal, state and local agencies, American Indian tribes, interested parties, and the general public. The results of this careful public interest review are fair and equitable decisions that allow reasonable use of private property, infrastructure development, and growth of the economy, while offsetting the authorized impacts to waters of the United States. The permit review process serves to first avoid and then minimize adverse effects of projects on aquatic resources to the maximum practicable extent. Any remaining unavoidable adverse impacts to the aquatic environment are offset by compensatory mitigation requirements, which may include restoration, enhancement, establishment, and/or preservation of aquatic ecosystem system functions and services.

Evaluation Factors

The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which 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, if the proposal would discharge dredged or fill material into waters of the United States, the evaluation of the activity will include application of the U.S. Environmental Protection Agency (EPA) Guidelines (40 C.F.R. Part 230) as required by section 404 (b)(1) of the Clean Water Act.

The Corps 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 issue, modify, condition, or deny a permit 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 (EIS) 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.

Preliminary Review of Selected Factors

EIS Determination- A preliminary determination has been made that an EIS is not required for the proposed work.

Water Quality- Section 401 of the Clean Water Act requires that any applicant for an individual section 404 permit provide proof of water quality certification to the Corps prior to permit issuance. For any proposed activity on Tribal land that is subject to Section 404 jurisdiction, applicants must obtain water quality certification from EPA. The applicant has applied for water quality certification from the California State Water Resources Control Board.

Coastal Zone Management- The proposed routine maintenance program would occur at several flood management facilities located within the coastal zone. The California Coastal Commission issued a Coastal Development Permit for the Maintenance Program on January 8, 2014. The applicant has certified that the proposed activities would comply with and would be conducted in a manner that is consistent with the approved State Coastal Zone Management Program. 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 maintenance program, the applicant must obtain concurrence from the California Coastal Commission that the maintenance program is consistent with the State's Coastal Zone Management Plan. The District Engineer hereby requests the California Coastal Commission's concurrence or non-concurrence.

Essential Fish Habitat- Preliminary determinations indicate the proposed activities may adversely affect Essential Fish Habitat (EFH). Pursuant to section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), the Los Angeles District hereby requests initiation of EFH consultation with the National Marine Fisheries Service (NMFS) for the proposed project. A separate letter will provide the detailed information to initiate EFH consultation via abbreviated consultation in order to comply with the MSA, pursuant to 50 C.F.R. 600.920(e)(3).

Cultural Resources- Maintenance activities conducted within waters of the United States would restore baseline/as-built conditions. No sediment excavation would be authorized beyond the designated baseline of the managed facilities. In addition, OCPW has stated that none of the bridges proposed for maintenance are eligible for the National Register of Historic Places. Pursuant to Section 106 of the National Historic Preservation Act, the Corps anticipates the implementation of the

proposed OCPW Maintenance Program will have no potential to affect historic properties. Prior to making a permitting decision, the Corps will make a determination of effect.

Endangered Species- According to an initial review conducted by OCPW, no maintenance activities would occur within facilities with federally listed species or designated critical habitat under this RGP. Sensitive facilities, such as those with riparian vegetation, may require limited maintenance activities. Additionally, OCPW has proposed a site reconnaissance/habitat assessment of each facility prior to maintenance to verify the absence of federally listed species. In addition, all maintenance activities in vegetated facilities would occur outside of the nesting season (activities in vegetated facilities would be conducted between September 15 and March 15) to the maximum extent practicable. Any activity that may affect federally listed species or designated critical habitat would not be authorized by this RGP.

In consideration of the information above, the Corps Regulatory Division has made a preliminary “no effect” determination for federally listed species. In addition, the maintenance program would not be located within designated critical habitat. Therefore, the Corps Regulatory Division has also made a “no effect” determination for critical habitat. Formal consultation under Section 7 of the Endangered Species Act (ESA) does not appear to be required at this time.

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.

Proposed Activity for Which a Permit is Required

Basic Project Purpose- The basic project purpose comprises the fundamental, essential, or irreducible purpose of the proposed project, and is used by the Corps to determine whether the applicant's project is water dependent, i.e., requires access or proximity to or siting within the special aquatic site to fulfill its basic purpose. Establishment of the basic project purpose is necessary only when the proposed activity would discharge dredged or fill material into a special aquatic site (e.g., wetlands, pool and riffle complex, mudflats, coral reefs). The basic project purpose for the proposed project is two-fold: flood risk management and bridge infrastructure maintenance. The proposed project is a non-water dependent activity in this specific instance.

Overall Project Purpose- The overall project purpose serves as the basis for the Corps' 404(b)(1) alternatives analysis and is determined by further defining the basic project purpose in a manner that more specifically describes the applicant's goals for the project, and which allows a reasonable range of alternatives to be analyzed. The overall project purpose for the proposed RGP is to authorize recurring maintenance activities to restore and maintain flood risk management capabilities and existing bridge crossings managed by OCPW.

Additional Project Information

Baseline Information- The OCPW Routine Maintenance Program would be located throughout the County of Orange within the flood management facilities shown on Exhibits 1-12 and listed on Table 1 and at the bridges listed on Table 2. Proposed activities regulated by the Corps Regulatory Division are shown on Table 3 and the extent of tidal influence in coastal facilities is documented on Table 4.

OCPW is currently conducting a broad-scale jurisdictional delineation of the flood management facilities proposed under this RGP. Exhibits 1-12 list the characteristics of each facility including their

configuration and substrate composition. These include earthen, rip-rap-lined, and concrete-lined channels, basins, and dams maintained by OCPW. Some facilities are primarily unvegetated, while others contain varying amounts of vegetation (native and non-native).

Project Description- OCPW proposes routine maintenance activities within Orange County Flood Control Division (OCFCD) right-of-way situated throughout the 13 watersheds of Orange County. Maintenance activities would be conducted on an as-needed basis and would include channel and basin/dam maintenance, bridge maintenance, and other activities regulated by the Corps Regulatory Division. The RGP would only authorize temporary impacts to waters of the United States. Furthermore, the RGP would only allow for activities resulting in minimal impacts both individually and cumulatively. No work would be authorized beyond the baseline/as-built conditions of each facility.

The extent of authorized activities would be restricted in watersheds with approved Special Area Management Plans (SAMPs). Specifically, activities conducted in the San Diego Creek Watershed and the San Juan Creek/Western San Mateo Creek Watersheds (as defined by their respective SAMPs) would be limited as follows:

- a. This RGP would authorize activities resulting in less than or equal to 0.5 acre of temporary impacts to waters of the United States, including less than or equal to 0.1 acre of temporary impacts to areas with native wetland vegetation, outside of aquatic resource integrity areas and
- b. This RGP would authorize activities resulting in less than or equal to 0.25 acre of temporary impacts to waters of the United States within aquatic resource integrity areas, but would not authorize impacts to native wetland vegetation within these areas.

No temporary impact limits would be imposed outside of these SAMP watersheds. However, OCPW has provided examples of recent maintenance projects that would likely represent the upper limits of temporary impacts for routine maintenance activities conducted under this RGP. These include the removal of 153,000 cubic yards (CY) of sediment and vegetation from an approximately 5,600-linear-foot concrete-lined channel and the removal of a total of 4,500 CYs of sediment from three locations totaling 5.8 acres within a facility with an earthen bottom and rip-rap slopes. The majority of maintenance activities conducted under this RGP would likely be smaller in scope.

As noted above, all activities in vegetated facilities would be conducted outside of the nesting season (activities in vegetated facilities would be conducted between September 15 and March 15) to the maximum extent practicable. If the nesting season cannot be avoided and construction or vegetation removal must occur between March 15th and September 15th, OCPW has proposed to do one of the following to avoid and minimize impacts to nesting birds: a) implement a 300-foot minimum avoidance buffer for all passerine birds and 500-foot minimum avoidance buffer for all raptors species. The breeding habitat/nest site would be fenced and/or flagged in all directions. The nest site area would not be disturbed until the nest becomes inactive, the young have fledged, the young are no longer being fed by the parents, the young have left the area, and the young will no longer be impacted by the project; b) develop a site-specific Nesting Bird Management Plan. This plan would be submitted to the Corps Regulatory Division and the California Department of Fish and Wildlife (CDFW) and would include detailed methodologies and definitions to enable a qualified avian biologist to monitor and implement nest-specific buffers based upon the life history of the individual species; species sensitivity to noise, vibration, and general disturbance; individual bird behavior; current site conditions (screening vegetation, topography, etcetera), ambient levels of human activity; the various project-related activities necessary to construct the project, and other features. The plan would be

supported by a Nest Log which tracks each nest and its outcome. The Nest Log would be submitted to CDFW at the end of each week; or c) OCPW may propose an alternative plan for avoidance of nesting birds for CDFW concurrence.

All haul/service routes would be designated along existing paved service roads situated outside of the drainage channels. All sediment/debris created during maintenance would be hauled to an approved County facility (i.e. stockyard or landfill). Wet sediment would be dried in an approved, upland stockpile site or an OCFCD parcel prior to transport using appropriate Best Management Practices (BMPs). All activities and staging would be conducted within the existing OCFCD/OCPW right-of-way or using temporary construction easements using appropriate BMPs. Each area of staging would be sited as close as possible to the maintenance activity to maximize efficiency and minimize impacts. OCPW has proposed to conduct the Maintenance Program under the RGP without the need to submit individual pre-construction notifications to the Corps Regulatory Division (see proposed Special Conditions for exceptions). This would help increase regulatory and maintenance efficiency. An annual report documenting all activities conducted under this RGP would be required to ensure work is being conducted in accordance with the terms and conditions of the RGP (see proposed Special Condition for reporting below).

Proposed Mitigation– The proposed mitigation may change as a result of comments received in response to this Public Notice, the applicant's response to those comments, and/or the need for the project to comply with the 404(b)(1) Guidelines. In consideration of the above, the proposed mitigation sequence (avoidance/minimization/compensation) as applied to the proposed project is summarized below:

1. **Avoidance:** OCPW would avoid impacts to waters of the United States to the maximum extent practicable. The original application proposed to include activities that would have resulted in permanent impacts to waters of the United States, including the installation of rip-rap for bank stabilization, the installation or modification of headwalls, and the installation or modification of culverts. These activities are no longer proposed under this RGP. In addition, the proposed permitting framework in the SAMP areas (described above) was developed to ensure minimal impacts to aquatic resources within the San Diego Creek and San Juan Creek/Western San Mateo Creek Watersheds. No activities would be authorized by the proposed RGP that may affect a federally listed endangered or threatened species or designated critical habitat. Finally, all activities in vegetated facilities would be completed outside of the nesting season (activities in vegetated facilities would be conducted between September 15 and March 15) to the maximum extent practicable.
2. **Minimization:** All activities would be conducted using standard BMPs. Only temporary impacts to waters of the United States would be authorized.
3. **Compensation:** The proposed Maintenance Program would result in only temporary impacts to waters of the United States through routine maintenance activities in flood management facilities and at bridges. Therefore, no compensatory mitigation has been proposed for the majority of proposed activities. However, impacts to eelgrass may require compensatory mitigation in accordance with the Southern California Eelgrass Mitigation Policy (SCEMP).

Proposed Special Conditions

The following list is comprised of proposed permit Special Conditions, which are required of similar types of projects:

1. 33 U.S.C. 408: A pre-construction notification shall be submitted to the Corps Regulatory Division for any activity that may alter or modify an existing federal project. No activity requiring a Section 408 permit shall be authorized by this RGP until the activity has been approved by the Corps Civil Works Program within the following facilities:
 - a. Coyote Creek Channel (A01) from 900 feet downstream of Valley View Street to 1,200 feet downstream of Imperial Highway;
 - b. Santa Ana River Channel (E01) from Pacific Coast Highway to Weir Canyon Road; and
 - c. Greenville-Banning Channel (D03) from downstream of Victoria Avenue to 1,500 feet upstream of Gisler Avenue.
2. Endangered Species Act: This Corps permit does not authorize you to take any threatened or endangered species or adversely modify designated critical habitat. In order to legally take a listed species, you must have separate authorization under the ESA (e.g. ESA Section 10 permit, or a Biological Opinion (BO) under ESA Section 7, with "incidental take" provisions with which you must comply).
3. Essential Fish Habitat: A pre-construction notification shall be submitted to the Corps Regulatory Division for any activity that may result in impacts to eelgrass (*Zostera marina*). In tidally influenced areas, a pre-construction eelgrass survey shall be conducted in accordance with the SCEMP (http://www.westcoast.fisheries.noaa.gov/publications/habitat/california_eelgrass_mitigation/eelpol_rev11_final.pdf) and submitted to the Corps Regulatory Division and NMFS before project-related activities commence. In addition, a pre-construction Caulerpa (*Caulerpa taxifolia*) survey shall be conducted in accordance with the Caulerpa Control Protocol (http://www.westcoast.fisheries.noaa.gov/publications/habitat/caulerpa_taxifolia/caulerpa_control_protocol_4.pdf) and submitted to the Corps Regulatory Division and NMFS before project-related activities commence. No work shall be conducted until a Notice to Proceed is issued by the Corps Regulatory Division. If the pre-construction eelgrass survey demonstrates eelgrass presence within the project vicinity, a post-project survey shall be conducted and impacts to eelgrass mitigated in accordance with the SCEMP. In the event that Caulerpa is detected within the project area, the Permittee shall not commence work until such time as the infestation has been isolated, treated, and the risk of spread is eliminated as confirmed in writing by the Corps Regulatory Division, in consultation with NMFS and CDFW.
4. Historic Properties: Pursuant to 36 C.F.R. section 800.13, in the event of any discoveries during construction of either human remains, archeological deposits, or any other type of historic property, the Permittee shall notify the Corps' Archeology Staff within 24 hours (Steve Dibble at 213-452-3849 or John Killeen at 213-452-3861). The Permittee shall immediately suspend all work in any area(s) where potential cultural resources are discovered. The Permittee shall not resume construction in the area surrounding the potential cultural resources until the Corps Regulatory Division re-authorizes project construction, per 36 C.F.R. section 800.13.
5. SAMP Watersheds: Impact limits have been designated within the boundaries of the SAMPs, i.e., the San Diego Creek Watershed and San Juan Creek/Western San Mateo Creek Watershed. Specifically, this RGP only authorizes activities resulting in less than or equal to 0.5 acre of temporary impacts to waters of the United States, including less than or equal to 0.1 acre of temporary impacts to areas with native wetland vegetation, outside of aquatic resource integrity areas. Furthermore, within aquatic resource integrity areas, this RGP only authorizes activities

resulting in less than or equal to 0.25 acre of temporary impacts to waters of the United States with no native wetland vegetation. No impact to native wetland vegetation is authorized within aquatic resource integrity areas.

6. Authorized Work: Any work authorized by this permit must be the minimum necessary to alleviate the maintenance need and shall not exceed the design specifications of the facilities. In the event that additional maintenance activities are required, the Permittee shall submit a pre-construction notification to the Corps Regulatory Division to perform the work. If the work requested under the permit were denied, the Permittee would need a separate permit from the Corps Regulatory Division.
7. Access: You must allow representatives from this office and other Federal and state resource agencies to inspect the authorized activity at any time deemed necessary to ensure the project is being or has been accomplished in accordance with the terms and conditions of this RGP.
8. BMPs: No debris, soil, silt, sand, sawdust, rubbish, cement or concrete washings thereof, oil or petroleum products, from construction shall be allowed to enter into or be placed where it may be washed by rainfall or runoff into waters of the United States. Therefore, the Permittee shall employ all standard BMPs to ensure that toxic materials, silt, debris, or excessive erosion do not enter waters of the United States during project construction.
9. Equipment: Vehicles shall not be driven or equipment operated in waters of the United States on-site, except as necessary to complete the proposed project. The Permittee shall ensure all vehicle maintenance, staging, storage, and dispensing of fuel occur in designated upland areas, located in such a manner as to prevent any runoff from entering waters of the United States.
10. Limits of Work: The Permittee shall clearly mark the limits of the workspace with flagging or similar means to ensure mechanized equipment does not enter sensitive habitats outside of the permitted structure. Adverse impacts to waters of the United States beyond the Corps-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.
11. Suitable Material: No discharge of dredged or fill material may consist of unsuitable material (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 Clean Water Act).
12. Aquatic Life Movements: No activity may substantially disrupt the movement of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area.
13. Navigation: The permitted activity shall not interfere with the right of the public to free navigation on all navigable waters of the United States. The Permittee understands and agrees that, if future operations by the United States require the removal, relocation, cessation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the Permittee will be required, upon due notice from the Corps, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

14. Reports: The Permittee shall submit an annual written report to this office by February 1st of each year this RGP is valid. The report shall summarize all maintenance activities conducted at the facilities throughout the year under this RGP. The report shall include written documentation and photographs of all work performed under this RGP during the prior year. Any data collected, including water quality samples and terrestrial or aquatic sensitive species surveys, shall be included in the annual report. Providing this report is mandatory. These reports enable us to track the use of this RGP to verify that the minimal effects determination is being met, as required by section 404(e) of the Clean Water Act. Failure to provide timely annual reports would constitute non-compliance with this Special Condition and would be considered a violation (33 C.F.R. section 326.4(d)). Furthermore, failure to provide these annual reports will jeopardize the possibility of reauthorizing this permit when it expires. At a minimum, the report shall include:

- a. The name, address, and telephone number of:
 - i. The Permittee's Point of Contact
 - ii. The Permittee's agent (if appropriate)
- b. Full description of the activities conducted during the previous year, including:
 - i. Description of each maintenance event for each facility or bridge, including any deviations from the project description. This description shall include the approximate volume of material dredged and the location of placement of this material on an aerial photograph
 - ii. Size and description of the project area (include maps, drawings, and photographs in conformance with the Corps' Regional (SPD) Map and Drawing Standards)
 - iii. Information on the receiving waterbody impacted including:
 - a) Name of waterbody
 - b) Type of receiving waterbody
 - c) Temporary/permanent adverse impact(s) in acres/cubic yards/linear feet
 - d) Other mitigation steps (to avoid, minimize)
 - e) Compensatory mitigation in acres/cubic yards/linear feet
 - iv. Information on federally listed or proposed endangered species, designated or proposed critical habitat, EFH, and federally managed fish species including:
 - a) Temporary/permanent adverse impacts
 - b) Mitigation steps (to avoid, minimize)
 - c) Compensatory mitigation

For additional information, please contact Stephen Estes at 213-452-3660 or via e-mail at Stephen.M.Estes@usace.army.mil. This Public Notice is issued by the Chief, Regulatory Division.

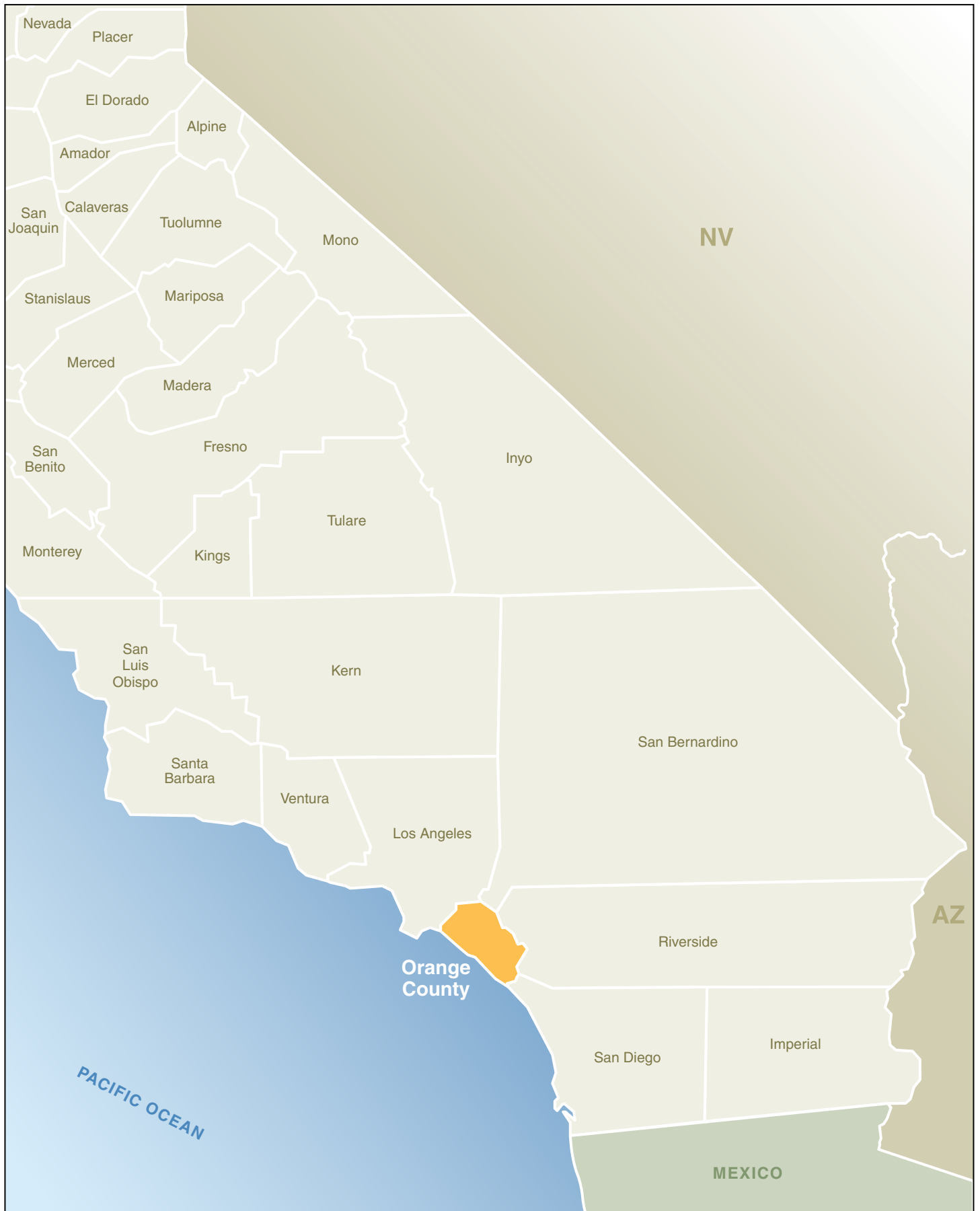


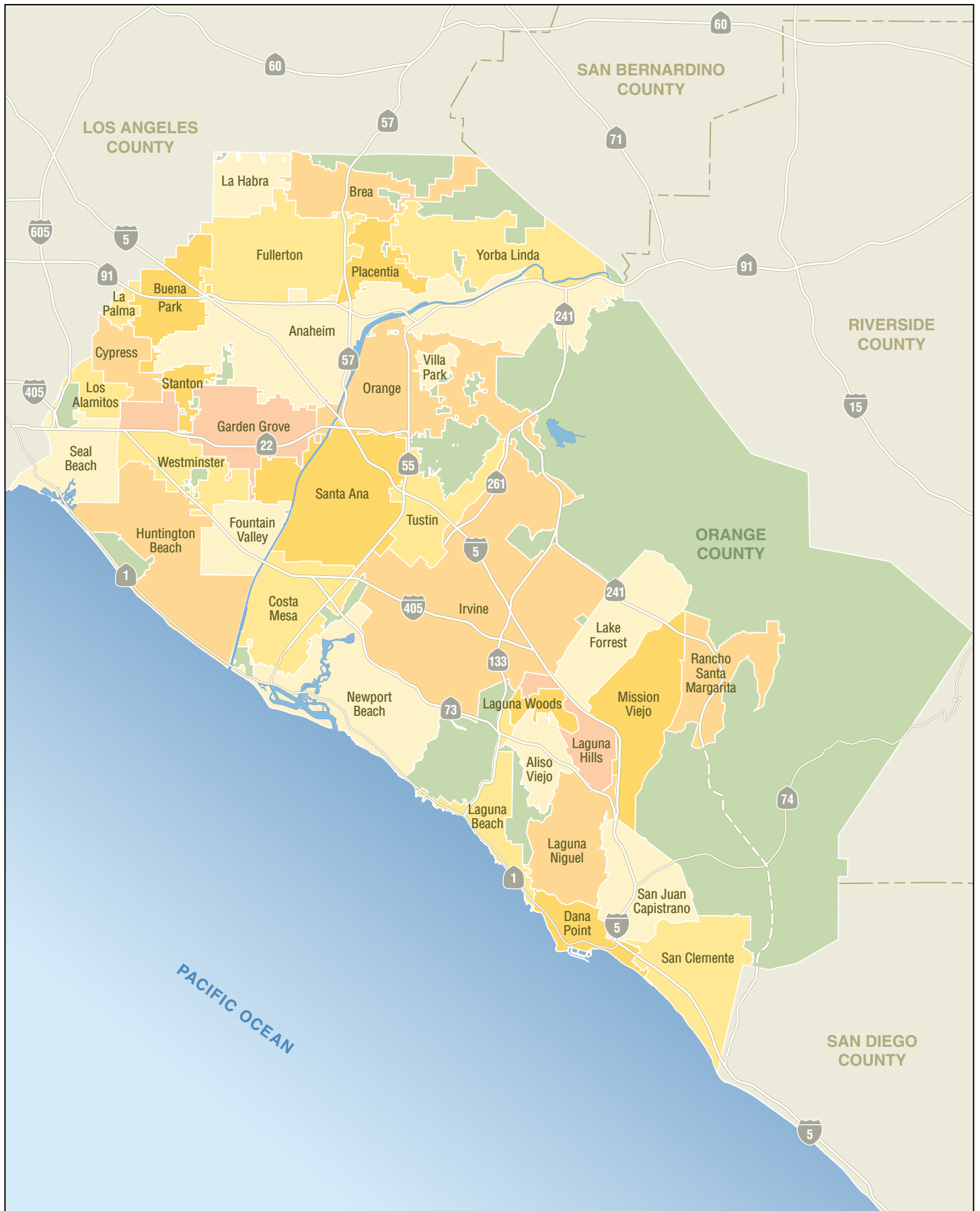
Regulatory Program Goals:

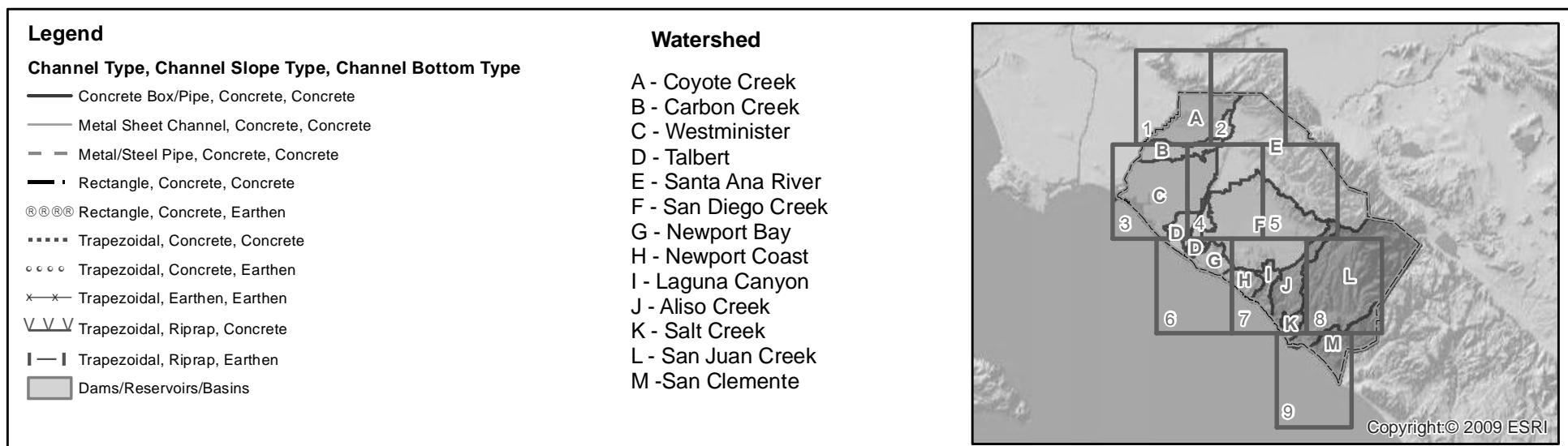
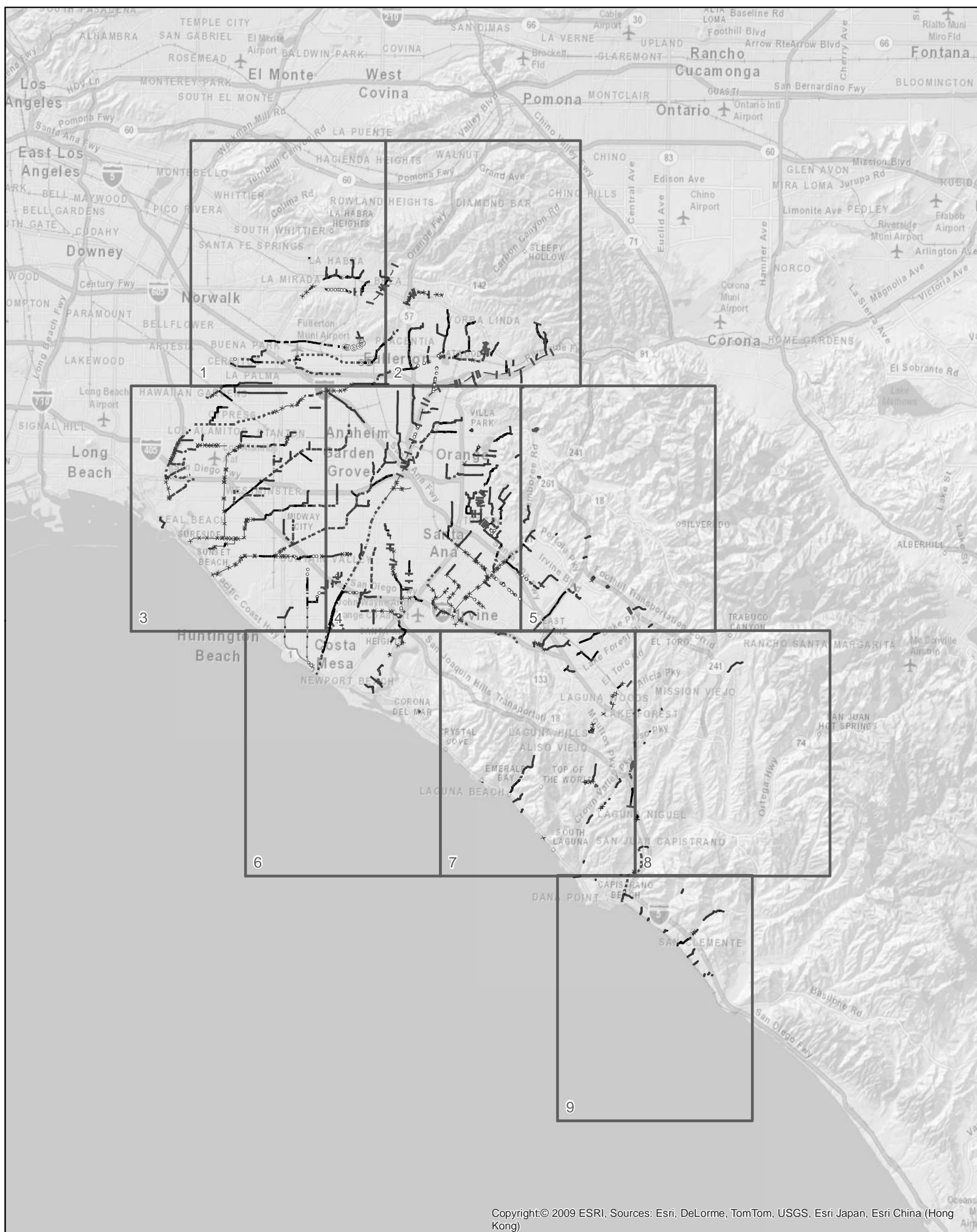
- To provide strong protection of the nation's aquatic environment, including wetlands.
- To ensure the Corps provides the regulated public with fair and reasonable decisions.
- To enhance the efficiency of the Corps' administration of its regulatory program.

U.S. ARMY CORPS OF ENGINEERS – LOS ANGELES DISTRICT

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LOS ANGELES, CALIFORNIA 90017
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Legend

Channel Type, Channel Slope Type, Channel Bottom Type

- Concrete Box/Pipe, Concrete, Concrete
- Metal Sheet Channel, Concrete, Concrete
- Metal/Steel Pipe, Concrete, Concrete
- Rectangle, Concrete, Concrete
- Rectangle, Concrete, Earthen
- Trapezoidal, Concrete, Concrete
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- Trapezoidal, Riprap, Concrete
- Trapezoidal, Riprap, Earthen
- Dams/Reservoirs/Basins

WATERSHED

- A - Coyote Creek
- B - Carbon Creek
- C - Westminster
- D - Talbert
- E - Santa Ana River
- F - San Diego Creek
- G - Newport Bay
- H - Newport Coast
- I - Laguna Canyon
- J - Aliso Creek
- K - Salt Creek
- L - San Juan Creek
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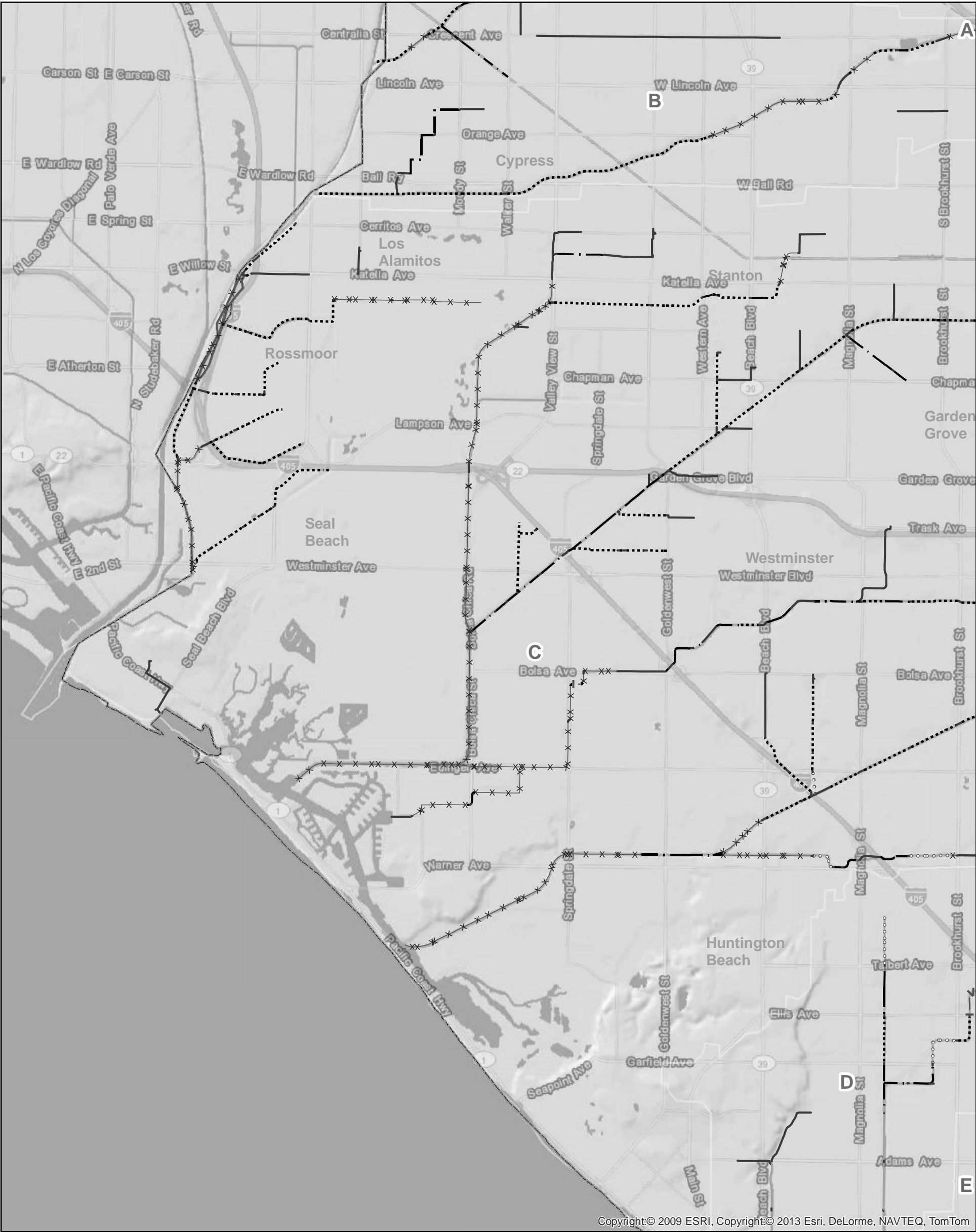
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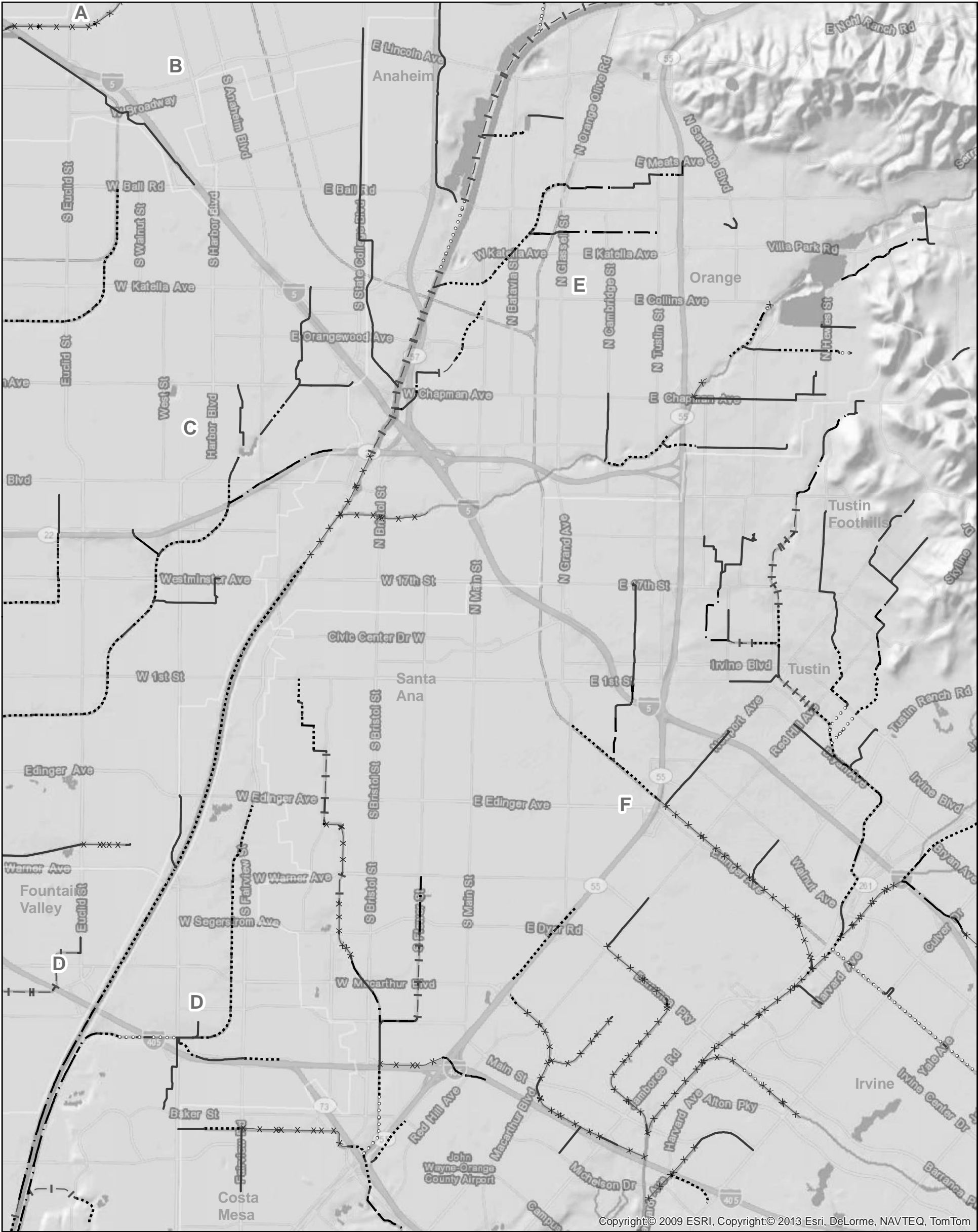
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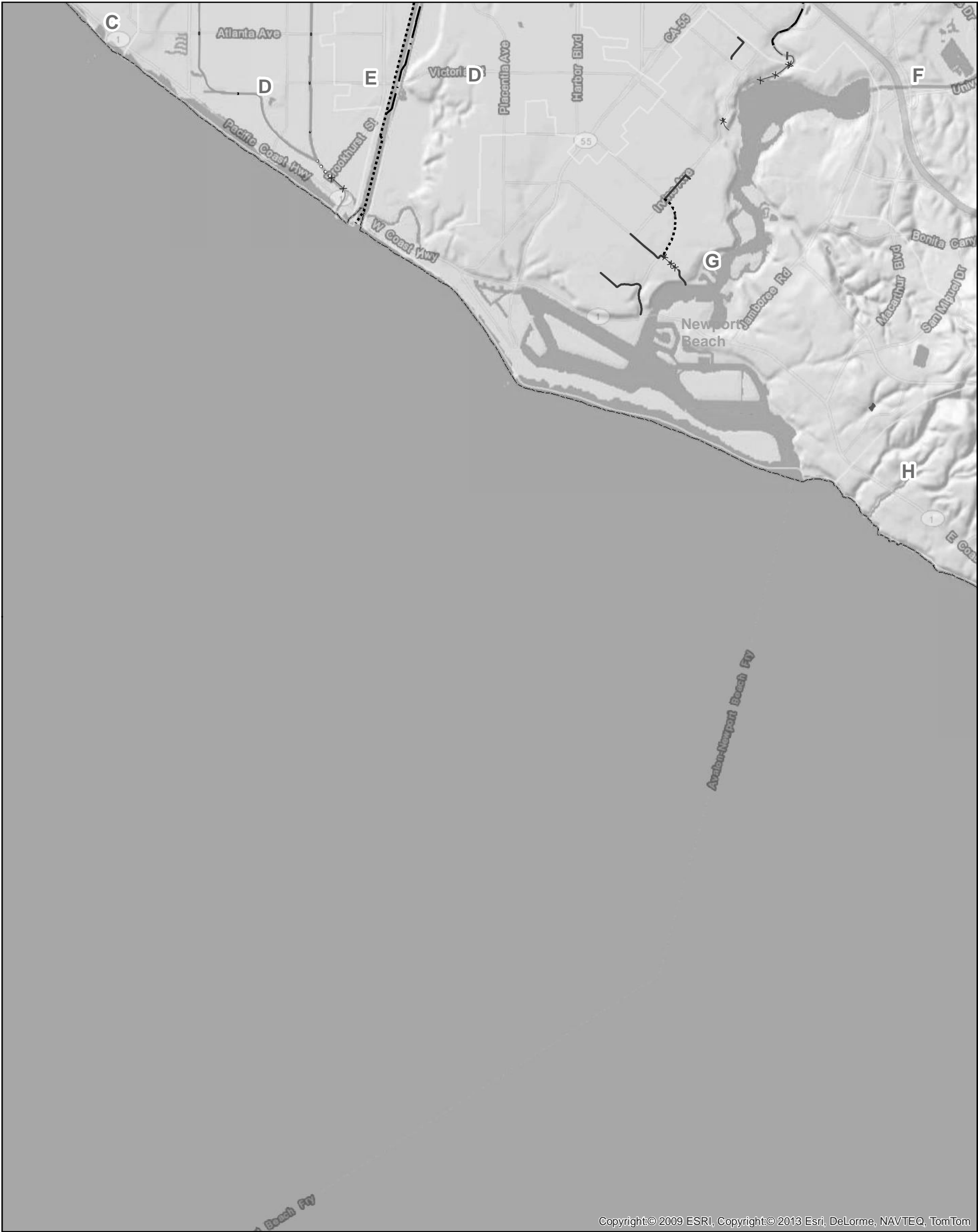
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Channel Type, Channel Slope Type, Channel Bottom Type

- Concrete Box/Pipe, Concrete, Concrete
- Metal Sheet Channel, Concrete, Concrete
- Metal/Steel Pipe, Concrete, Concrete
- Rectangle, Concrete, Concrete
- Rectangle, Concrete, Earthen
- Trapezoidal, Concrete, Concrete
- Trapezoidal, Concrete, Earthen
- Trapezoidal, Earthen, Earthen
- Trapezoidal, Riprap, Concrete
- Trapezoidal, Riprap, Earthen
- Dams/Reservoirs/Basins

WATERSHED

- A - Coyote Creek
- B - Carbon Creek
- C - Westminster
- D - Talbert
- E - Santa Ana River
- F - San Diego Creek
- G - Newport Bay
- H - Newport Coast
- I - Laguna Canyon
- J - Aliso Creek
- K - Salt Creek
- L - San Juan Creek
- M - San Clemente



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Legend

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- Metal Sheet Channel, Concrete, Concrete
- Metal/Steel Pipe, Concrete, Concrete
- Rectangle, Concrete, Concrete
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- Trapezoidal, Concrete, Earthen
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- Trapezoidal, Riprap, Earthen
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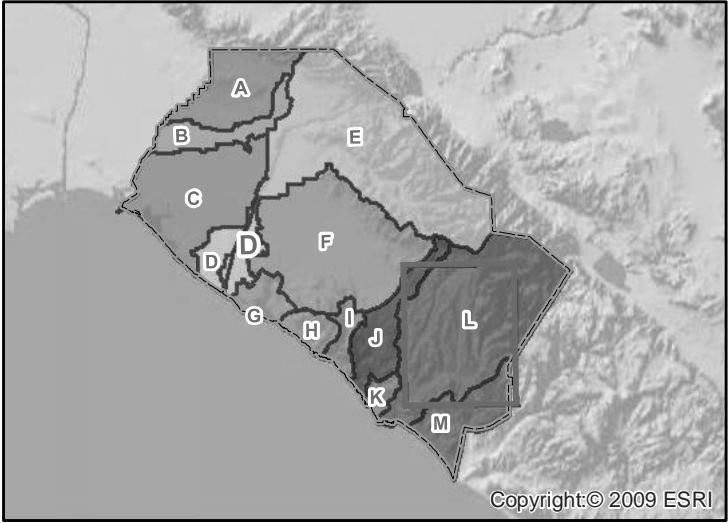
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Channel Type, Channel Slope Type, Channel Bottom Type

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- Metal Sheet Channel, Concrete, Concrete
- Metal/Steel Pipe, Concrete, Concrete
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- Rectangle, Concrete, Earthen
- Trapezoidal, Concrete, Concrete
- Trapezoidal, Concrete, Earthen
- Trapezoidal, Earthen, Earthen
- Trapezoidal, Riprap, Concrete
- Trapezoidal, Riprap, Earthen
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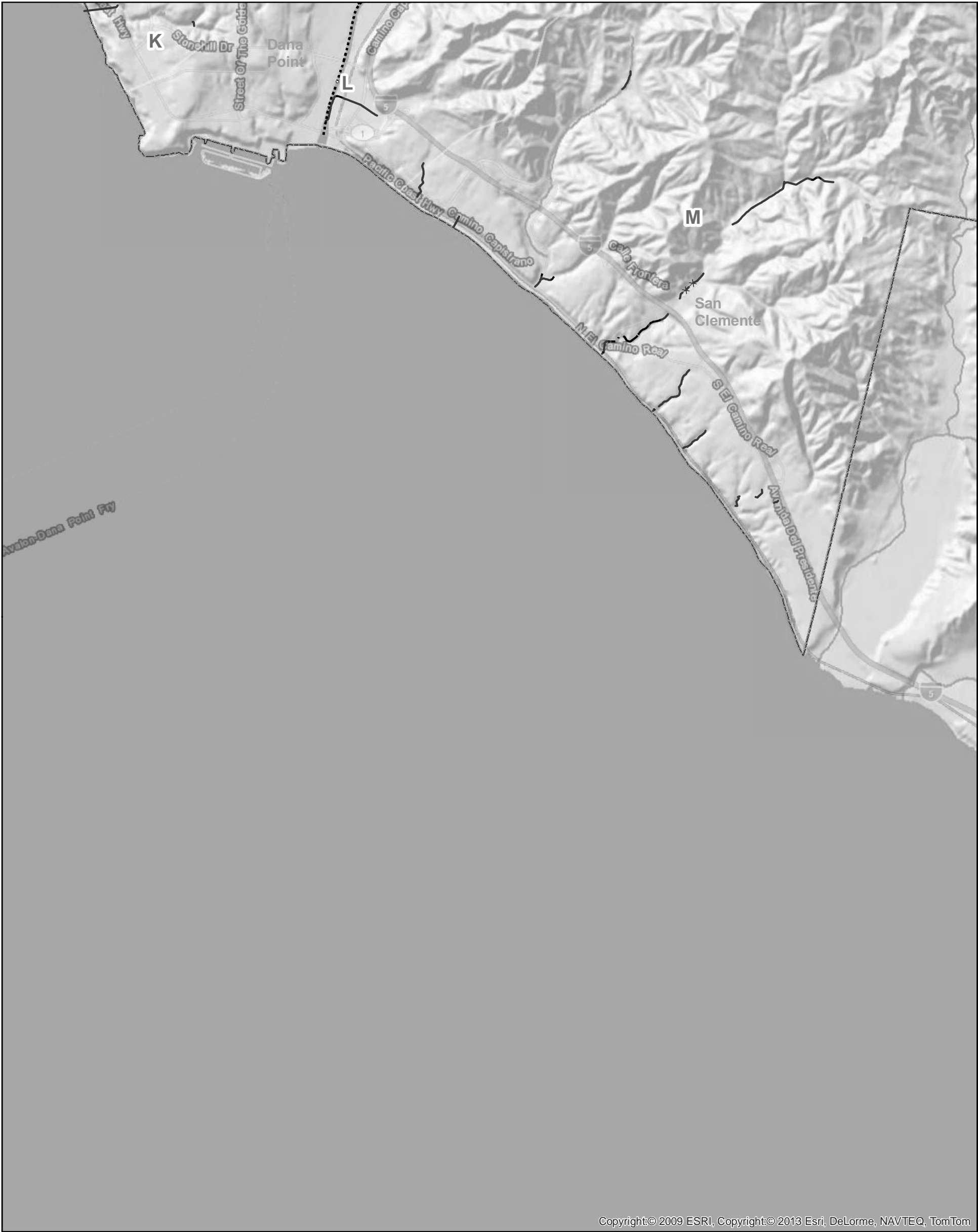
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COUNTY OF ORANGE LONG-TERM MAINTENANCE PERMITTING PROGRAM

Project Site - Quad 8

Exhibit 11



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Legend

Channel Type, Channel Slope Type, Channel Bottom Type

- Concrete Box/Pipe, Concrete, Concrete
- Metal Sheet Channel, Concrete, Concrete
- Metal/Steel Pipe, Concrete, Concrete
- Rectangle, Concrete, Concrete
- Rectangle, Concrete, Earthen
- Trapezoidal, Concrete, Concrete
- Trapezoidal, Concrete, Earthen
- Trapezoidal, Earthen, Earthen
- Trapezoidal, Riprap, Concrete
- Trapezoidal, Riprap, Earthen
- Dams/Reservoirs/Basins

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Table 1: OCPW Facilities Proposed for Inclusion in RGP

County Facility Name	Drainage Name	Watershed
A01	Coyote Creek Channel	A-Coyote Creek
A01P01	None	A-Coyote Creek
A01P03	Orangethorpe Storm Channel	A-Coyote Creek
A01P09	None	A-Coyote Creek
A01P13	East La Habra Storm Channel	A-Coyote Creek
A01P20	Whittier Storm Drain	A-Coyote Creek
A01P22	None	A-Coyote Creek
A02	Brea Creek Channel	A-Coyote Creek
A03	Fullerton Creek Channel	A-Coyote Creek
A03S01	Buena Park Storm Channel	A-Coyote Creek
A03S02	Houston Storm Channel	A-Coyote Creek
A03S03	Ash Storm Channel	A-Coyote Creek
A04	Brea Canyon Channel	A-Coyote Creek
A04S01	None	A-Coyote Creek
A06	Loftus Diversion Channel	A-Coyote Creek
A07	Imperial Channel	A-Coyote Creek
A08	La Mirada Creek Channel	A-Coyote Creek
B00P01	Carbon Creek Channel	B-Carbon Creek
B01	Carbon Creek Channel	B-Carbon Creek
B01B05	Cypress Retarding Basin	B-Carbon Creek
B01P01	West Anaheim Storm Drain	B-Carbon Creek
B01P08	None	B-Carbon Creek
B01P17	None	B-Carbon Creek
B01P23	None	B-Carbon Creek
B01P25	None	B-Carbon Creek
B01S01	Cypress Storm Channel	B-Carbon Creek
B01S03	Placentia Storm Channel	B-Carbon Creek
B01S23	None	B-Carbon Creek
B02	Moody Creek Channel	B-Carbon Creek
B02P03	Crescent Storm Drain	B-Carbon Creek
B02P04	None	B-Carbon Creek
B02S01	None	B-Carbon Creek
B02S02	Dairyland Storm Channel	B-Carbon Creek
C00P02	None	C-Westminster
C00PS1	Seal Beach Pump Station	C-Westminster
C01	Los Alamitos Channel	C-Westminster
C01P02	None	C-Westminster
C01S01	Kempton Storm Channel	C-Westminster
C01S02	Rossmoor Storm Channel	C-Westminster
C01S03	Montecito Storm Channel	C-Westminster
C01S04	Bixby Storm Channel	C-Westminster
C01S05	Katella Storm Channel	C-Westminster
C01S06	Federal Storm Channel	C-Westminster
C02	Bolsa Chica Channel	C-Westminster
C02P01	None	C-Westminster
C02P03	None	C-Westminster

C02P04	None	C-Westminster
C02P08	None	C-Westminster
C02S01	Stanton Storm Channel	C-Westminster
C02S02	Garden Grove Storm Channel	C-Westminster
C02S03	Jonathan Storm Channel	C-Westminster
C03	Anaheim-Barber City Channel	C-Westminster
C03P01	None	C-Westminster
C03P02	None	C-Westminster
C03P04	None	C-Westminster
C03P05	None	C-Westminster
C03P08	None	C-Westminster
C03P17	None	C-Westminster
C03S01	Milan Storm Channel	C-Westminster
C03S02	Humboldt Storm Channel	C-Westminster
C03S03	Bestel Storm Channel	C-Westminster
C03S04	Rosalia Storm Channel	C-Westminster
C03S05	None	C-Westminster
C04	Westminster Channel	C-Westminster
C04P12	None	C-Westminster
C04S02	None	C-Westminster
C05	East Garden Grove-Wintersburg Channel	C-Westminster
C05P06	None	C-Westminster
C05P07	Van Buren Storm Drain	C-Westminster
C05P12	West Santa Ana Storm Drain	C-Westminster
C05P19	None	C-Westminster
C05P21	None	C-Westminster
C05P22	None	C-Westminster
C05P23	None	C-Westminster
C05P24	Worthy Storm Drain	C-Westminster
C05P27	Newland Storm Drain	C-Westminster
C05P32	Bolsa-Jefferson Storm Drain	C-Westminster
C05P34	Purdy Storm Drain	C-Westminster
C05S01	Newland Street Storm Channel	C-Westminster
C05S05	Edinger Storm Channel	C-Westminster
C05S10	Newhope Storm Channel	C-Westminster
C05S11	Lewis Storm Channel	C-Westminster
C06	Ocean View Channel	C-Westminster
C06P05	Newhope Storm Drain	C-Westminster
C07	Sunset Channel	C-Westminster
D01	Huntington Beach Channel	D-Talbert
D01P05	None	D-Talbert
D01P06	None	D-Talbert
D02	Talbert Channel	D-Talbert
D03	Greenville-Banning Channel	D-Talbert
D03P02	None	D-Talbert
D03P08	None	D-Talbert
D03S03	Gisler Storm Channel	D-Talbert
D04	Fairview Channel	D-Talbert
D05	Fountain Valley Channel	D-Talbert

E01	Santa Ana River Channel	E-Santa Ana River
E01P02	None	E-Santa Ana River
E01P14	None	E-Santa Ana River
E01P63	None	E-Santa Ana River
E01P79	Southpark Storm Drain	E-Santa Ana River
E01S01	East Richfield Storm Channel	E-Santa Ana River
E01S02	Chantilly Storm Channel	E-Santa Ana River
E01S04	Deerfield Storm Channel	E-Santa Ana River
E01S09	Walnut Storm Channel	E-Santa Ana River
E02	Carbon Canyon Diversion Channel	E-Santa Ana River
E03	Carbon Canyon Channel	E-Santa Ana River
E03P01	None	E-Santa Ana River
E03S01	None	E-Santa Ana River
E04	Atwood Channel	E-Santa Ana River
E04P01	None	E-Santa Ana River
E05	Richfield Channel	E-Santa Ana River
E06	Esperanza Channel	E-Santa Ana River
E06S01	Blue Mud Storm Channel	E-Santa Ana River
E07	Collins Channel	E-Santa Ana River
E07S01	Marlboro Storm Channel	E-Santa Ana River
E07S02	None	E-Santa Ana River
E07S03	Buckeye Storm Channel	E-Santa Ana River
E08	Santiago Creek Channel	E-Santa Ana River
E08P01	La Veta Storm Drain	E-Santa Ana River
E08P02	Villa Park Storm Drain	E-Santa Ana River
E08P03	Center Street Storm Drain	E-Santa Ana River
E08P04	Mesa Drive Storm Drain	E-Santa Ana River
E08P06	None	E-Santa Ana River
E08P07	None	E-Santa Ana River
E08P12	None	E-Santa Ana River
E08P14	None	E-Santa Ana River
E08S01	None	E-Santa Ana River
E08S02	Alameda Storm Drain	E-Santa Ana River
E08S06	Handy Creek Channel	E-Santa Ana River
E10	Fletcher Channel	E-Santa Ana River
E10P01	None	E-Santa Ana River
E11	Bitterbush Channel	E-Santa Ana River
E12	None	E-Santa Ana River
E12P01	None	E-Santa Ana River
F01	Santa Ana-Delhi Channel	F-San Diego Creek
F01S01	Airport Storm Channel	F-San Diego Creek
F01S03	Baker Storm Channel	F-San Diego Creek
F02	Santa Ana Gardens Channel	F-San Diego Creek
F03	Paularino Channel	F-San Diego Creek
F03P02	None	F-San Diego Creek
F04P04	Coyote Canyon Storm Drain	F-San Diego Creek
F05	San Diego Creek Channel	F-San Diego Creek
F05S03	None	F-San Diego Creek
F06	Peters Canyon Channel	F-San Diego Creek

F06S02	None	F-San Diego Creek
F06S03	Como Storm Channel	F-San Diego Creek
F07	Modena-Irvine Channel	F-San Diego Creek
F07P01	None	F-San Diego Creek
F07P04	Tustin Heights Storm Drain	F-San Diego Creek
F07P06	Hewes Storm Drain	F-San Diego Creek
F07P08	None	F-San Diego Creek
F07P09	Vanderlip Storm Drain	F-San Diego Creek
F07P14	Crawford Canyon Storm Drain	F-San Diego Creek
F07P19	None	F-San Diego Creek
F07P23	None	F-San Diego Creek
F07P30	None	F-San Diego Creek
F07S01	La Colina-Red Hill Channel	F-San Diego Creek
F07S05	None	F-San Diego Creek
F07SIP12	Warren Avenue Storm Drain	F-San Diego Creek
F08	Lane Channel	F-San Diego Creek
F08P07	None	F-San Diego Creek
F08P20	None	F-San Diego Creek
F08S01	Armstrong Channel	F-San Diego Creek
F09	Barranca Channel	F-San Diego Creek
F09P15	None	F-San Diego Creek
F10	Santa Ana-Santa Fe Channel	F-San Diego Creek
F10P02	None	F-San Diego Creek
F10P07	El Camino Real Storm Drain	F-San Diego Creek
F10S01	None	F-San Diego Creek
F11	Southwest-Tustin Channel	F-San Diego Creek
F12	North Tustin Channel	F-San Diego Creek
F12P02	None	F-San Diego Creek
F12P03	None	F-San Diego Creek
F12P04	Yorba Street Storm Drain	F-San Diego Creek
F12P11	Prospect Storm Drain	F-San Diego Creek
F13	Red Hill Channel	F-San Diego Creek
F13P01	None	F-San Diego Creek
F13P05	Rainbow Storm Channel	F-San Diego Creek
F14	San Joaquin Channel	F-San Diego Creek
F14S01	Culver Storm Channel	F-San Diego Creek
F15	Sand Canyon Channel	F-San Diego Creek
F16	Marshburn Channel	F-San Diego Creek
F16B01	Marshburn Retarding Basin	F-San Diego Creek
F17	Bee Canyon Channel	F-San Diego Creek
F18	Agua Chinon Wash Channel	F-San Diego Creek
F19	Serrano Creek Channel	F-San Diego Creek
F20	Borrego Canyon Channel	F-San Diego Creek
F22	None	F-San Diego Creek
F23	Canada Channel	F-San Diego Creek
F23S02	Veeh Storm Channel	F-San Diego Creek
F24	Bommer Canyon Channel	F-San Diego Creek
F25	Central Irvine Channel	F-San Diego Creek
F25S05	None	F-San Diego Creek

F26	Rattlesnake Canyon Channel	F-San Diego Creek
F26B02	Orchard Estates Basin	F-San Diego Creek
F26P01	East Foothill Channel	F-San Diego Creek
F27	Hicks Canyon Channel	F-San Diego Creek
F27B01	Hicks Canyon Retarding Basin	F-San Diego Creek
F27P01	None	F-San Diego Creek
G00P01	None	G-Newport Bay
G00P07	Bayside Storm Drain	G-Newport Bay
G02	East Costa Mesa Channel	G-Newport Bay
G02P01	None	G-Newport Bay
G02P02	None	G-Newport Bay
G03	Santa Isabel Channel	G-Newport Bay
G03P01	None	G-Newport Bay
G03P02	22 nd Street Storm Drain	G-Newport Bay
H05	None	H-Newport Coast
I00P02	None	I-Laguna Canyon
I00P03	Bluebird Storm Channel	I-Laguna Canyon
I02	Laguna Canyon Channel	I-Laguna Canyon
I02P12	None	I-Laguna Canyon
J01	Aliso Creek Channel	J-Aliso Creek
J03	Sulphur Creek Channel	J-Aliso Creek
J03P01	Niguel Storm Drain	J-Aliso Creek
J04	Narco Channel	J-Aliso Creek
J04P02	None	J-Aliso Creek
J04P03	None	J-Aliso Creek
J04P04	None	J-Aliso Creek
J05	Aliso Hills Channel	J-Aliso Creek
J06	Dairy Fork Channel	J-Aliso Creek
J07	English Canyon Channel	J-Aliso Creek
K01	Salt Creek Channel	K-Salt Creek
K01PS1	None	K-Salt Creek
L01	San Juan Creek Channel	L-San Juan Creek
L01S01	Del Obispo Storm Channel	L-San Juan Creek
L01S02	Capistrano Beach Storm Channel	L-San Juan Creek
L01S06	Alipaz Storm Channel	L-San Juan Creek
L02	Trabuco Creek Channel	L-San Juan Creek
L02P02	Casitas Capistrano Storm Drain	L-San Juan Creek
L03	Oso Creek Channel	L-San Juan Creek
L03P18	Oso Diversion Storm Drain	L-San Juan Creek
L03P21	None	L-San Juan Creek
L04	La Paz Channel	L-San Juan Creek
L04P03	None	L-San Juan Creek
L05P01	None	L-San Juan Creek
L11	Tijeras	L-San Juan Creek
M00P01	Capistrano Palisades Storm Drain	M-San Clemente
M00P02	Trafalgar Storm Drain	M-San Clemente
M00S01	None	M-San Clemente
M00S04	Los Lobos Storm Channel	M-San Clemente
M00S05	Riviera Storm Channel	M-San Clemente

M00S07	Marquita Storm Channel	M-San Clemente
M00S08	None	M-San Clemente
M01	Debris Barrier near Grande Vista	M-San Clemente
M01S01	Casadita Storm Channel	M-San Clemente
M02	Segunda Deshecha Cañada Channel	M-San Clemente
M02S02	None	M-San Clemente
County Facility Name	Dam/Basin/Reservoir Name	Watershed
C01B02	Rossmoor Retarding Basin	C-Westminster
E04D01	Yorba Linda Reservoir	E-Santa Ana River
E08D01	Villa Park Dam	E-Santa Ana River
F06B03	Peters Canyon Dam	F-San Diego Creek
G00D02	Harbor View Dam	G-Newport Bay
J03D0	Sulphur Creek Dam	J-Aliso Creek
L03B02	Galivan Basin	L-San Juan Creek

Table 2: List of County-Owned Bridges Proposed for Inclusion in RGP

Structure (Street or Railroad Name)	Intersected Facility	Characteristics of Facility Under Bridge
Dale Street	Anaheim-Barber Channel	U-shaped, entirely concrete
Edinger Avenue	Bolsa-Chica Channel	Trapezoid, earthen bottom/rip-rap sides
Brea Boulevard	Brea Canyon Channel	Natural, entirely earthen
Brea Boulevard	Brea Canyon Channel	U-shaped, entirely concrete
Brea Boulevard	Brea Canyon Channel	U-shaped, entirely concrete
Tonner Canyon Road	Brea Canyon Channel	Trapezoid, entirely concrete
Island Way	Dana Point Harbor	Trapezoid, earthen bottom/concrete sides
Amapola Avenue	Handy Creek	Natural, earthen bottom/masonry sides
Meads Avenue	Handy Creek	Natural, entirely earthen
Orange Park Boulevard	Handy Creek	U-shaped, entirely concrete under bridge
Silverado Canyon Road	Ladd Canyon	Natural, entirely earthen
Santiago Canyon Road	Limestone Canyon	U-shaped, entirely concrete under bridge
Riverford Road	Redhill Channel	U-shaped, entirely concrete
Bent Twig Lane	Redhill Channel	U-shaped, entirely concrete
Antonio Parkway	San Juan Creek	Natural, entirely earthen
Mason Park	Sand Canyon Wash	U-shaped, entirely concrete
Santa Ana Avenue	Santa Ana-Delhi Channel	Trapezoid, entirely concrete
Santiago Canyon Road	Santiago Creek	Natural, entirely earthen
Santiago Canyon Road	Santiago Creek	Natural, entirely earthen
Modjeska Canyon Road	Santiago Creek	Natural, entirely earthen
Modjeska Canyon Road	Santiago Creek	Natural, entirely earthen
Olive Hill Road	Santiago Creek	Natural, entirely earthen
Villa Park Road	Santiago Creek	Steel pipe culvert
Hicks Canyon Haul Road	Santiago Creek	Natural, entirely earthen
Lincoln Avenue	Santa Ana River	Trapezoid, earthen bottom/rip-rap sides
Talbert Avenue-MacArthur Boulevard	Santa Ana River	Trapezoid, entirely concrete
Hamilton Avenue-Victoria Street	Santa Ana River	Trapezoid, earthen bottom/rip-rap sides
Kraemer Boulevard-Glassell Street	Santa Ana River	Trapezoid, earthen bottom/rip-rap sides
Warner Avenue	Santa Ana River	Trapezoid, entirely concrete
Edinger Avenue	Santa Ana River	Trapezoid, entirely concrete
Adams Avenue	Santa Ana River	Trapezoid, earthen bottom/concrete sides
Slater Avenue-Segerstrom Avenue	Santa Ana River	Trapezoid, entirely concrete
Harbor Boulevard	Santa Ana River	Trapezoid, entirely concrete
Silverado Canyon Road	Silverado Creek	Natural, rocky bottom/masonry sides
Kitterman Drive	Silverado Creek	Natural, rip-rap bottom/masonry sides
Silverado Canyon Road	Silverado Creek	Natural, rocky bottom/concrete sides
Silverado Canyon Road	Silverado Creek	Natural, rocky bottom/earthen sides
Silverado Canyon Road	Silverado Creek	Natural, rocky bottom/earthen sides
Silverado Canyon Road	Silverado Creek	Trapezoid, rocky bottom/concrete sides
Silverado Canyon Road	Silverado Creek	Natural, rocky bottom/masonry sides
Silverado Canyon Road	Silverado Creek	Natural, rocky bottom/masonry sides
Belha Way	Silverado Creek	Trapezoid, entirely concrete
Thisa Way	Silverado Creek	U-shaped, entirely concrete
Sycamore Drive	Silverado Creek	Natural, rip-rap bottom/masonry sides
Broadway	Sunset Channel	U-shaped, earthen bottom/sheet pile sides
Trabuco Canyon Road	Trabuco Creek	U-shaped, entirely concrete
Oso Parkway	Trabuco Creek	Natural, entirely earthen
Crown Valley Parkway	Trabuco Creek	Natural, entirely earthen
Antonio Parkway	Wildlife Corridor	Natural gulley under bridge
Santiago Canyon Road	Williams Creek	Natural, entirely earthen

**Table 3: List of Activities Regulated Under Section 404 of the Clean Water Act and/or
Section 10 of the Rivers and Harbors Act of 1899**

Activities regulated if resulting in a discharge of dredged or fill material into waters of the United States (Section 404)	Activities regulated if conducted within, below, or above navigable waters of the United States (section 10)	Activities not regulated by the Corps Regulatory Division
Channels	Channels	Channels
Channel cleaning	Channel cleaning	Rodent control
Removal and in-kind replacement of concrete lining (activity may be exempt from Section 404)	Removal and in-kind replacement of concrete lining	Insect control
Repair or in-kind replacement of roadway storm drain pipes	Repair or in-kind replacement of roadway storm drain pipes	Graffiti pressure wash
Concrete channel silt removal-loader to baseline conditions	Concrete channel silt removal-loader to baseline conditions	Graffiti paint/spray
Concrete channel silt removal-bobcat to baseline conditions	Concrete channel silt removal-bobcat to baseline conditions	Graffiti hand roll
Dirt channel silt removal to baseline conditions	Dirt channel silt removal to baseline conditions	Bridges
Compact channel slope to baseline conditions	Compact channel slope to baseline conditions	Graffiti paint/spray
Slope repair/rip-rap preparation to baseline conditions	Slope repair/rip-rap preparation to baseline conditions	Graffiti hand roll
Backfill/repair washouts to baseline conditions	Backfill/repair washouts to baseline conditions	Clean and paint bridge steel
Tractor removal of Arundo	Tractor removal of Arundo	
Annual dam inspections and in-kind repairs	Annual dam inspections and in-kind repairs	
Bridges	Pre-emergent weed control	
In-kind restoration of scour protection measures at bridges	Weed control	
	Manual removal of Arundo	
	Arundo treatment	
	General fence maintenance	
	Flap gate inspection/maintenance	
	Maintain pump stations	
	Operate pump stations	
	Pump station cleaning	
	Inspect/maintain diversions to baseline conditions	
	Dam operations and maintenance	
	Clean drains via vacuum truck	
	Vault cleaning	
	Aggregate-base (AB) maintain levee to baseline conditions	
	Manual cleaning/inspection of drains	
	Landscape maintenance	
	Right-of-way pruning	
	Bridges	
	Repair concrete structure damage below deck level to baseline conditions	

Table 4: Extent of Tidal Influence in Facilities Proposed for Inclusion in RGP

County Facility Name	Facility Description	Extent of Tidal Influence*	Soil Survey	Substrate Type	Habitat Type
C01	Earth Trapezoidal Channel	extends to State Route 22	BOLSA SILT LOAM, DRAINED; BOLSA SILTY CLAY LOAM, DRAINED	silt loam	open water, bare ground, freshwater marsh
C01S06	Earth Trapezoidal Channel, Underground Conduit (Box/Pipe), Concrete-Lined Trapezoidal Channel	extends to Alderwood Lane	BOLSA SILTY CLAY LOAM; DRAINED	silt loam	open water, bare ground
C02	Earth Trapezoidal Channel	extends to McFadden Avenue	BOLSA SILT LOAM, DRAINED; WATER	silty clay, silty clay loam	open water, saltwater marsh
C04	Earth Trapezoidal Channel	extends to about 800 feet upstream of Bolsa Chica Street	BOLSA SILT LOAM, DRAINED; WATER; BOLSA SILTY CLAY LOAM, DRAINED	silty clay	open water, bare ground
C05	Earth Trapezoidal Channel, Concrete-Lined Rectangle Channel	extends to Diane Lane	TIDAL FLATS; WATER; THAPTO-HISTIC FLUVAQUENTS; BOLSA SILTY CLAY LOAM; BOLSA SILTY CLAY LOAM, DRAINED	silty clay loam	open water, patches of freshwater marsh
C07	Underground Conduit	extends to Saybrook Lane	BEACHES	Not Accessible	None
D01	Concrete Sides/Soft Bottom Rectangle Channel, RipRap Rectangle Channel with Bridge, Underground Conduit, Earth/RipRap Rectangle Channel with Bridge, Earth Irregular Trapezoidal Channel, Natural Watercourse	extends to Adams Avenue Pump Station	TIDAL FLATS; CHINO SILTY CLAY LOAM; BOLSA SILT LOAM, DRAINED; BOLSA SILT LOAM	silty clay loam	open water, eelgrass, saltwater marsh
D02	Concrete-Lined Rectangle Channel, Concrete Sides/Soft Bottom Rectangle Channel, Underground Conduit	extends between Adams Avenue and Yorktown Avenue	TIDAL FLATS; BOLSA SILT LOAM, DRAINED; HUENEME FINE SANDY LOAM, DRAINED;	Not Accessible	open water, bare gorund, eelgrass
E01	Concrete Lined Rectangle Channel, RipRap Trapezoidal Channel	extends up to Adams Avenue	RIVERWASH	Sand, silt loam	bare gorund, saltwater marsh, open water
D03	Concrete Lined Rectangle Channel	extends up to Adams Avenue	METZ LOAMY SAND, MODERATELY FINE SUBSTRATUM; HUENEME FINE SANDY LOAM, DRAINED	Not Accessible	open water
D04	Earth Trapezoidal Channel	extends to Placentia Ave	METZ LOAMY SAND, MODERATELY FINE SUBSTRATUM; HUENEME FINE SANDY LOAM, DRAINED	sand, cobble on channel bars	bare ground, patches of freshwater marsh
F01	Earth Channel, Concrete-Lined Trapezoidal Channel, Concrete-Lined Trapezoidal Channel	extends to Mesa Drive	CIENEBA SANDY LOAM, 30 TO 75 PERCENT SLOPES, ERODED; MYFORD SANDY LOAM, 9 TO 15 PERCENT SLOPES; MYFORD SANDY LOAM, 2 TO 9 PERCENT SLOPES; WATER	sandy loam	open water, bare ground, saltwater marsh
J01	Natural Watercourse	extends to Hwy-1	RIVERWASH; TIDAL FLATS; BEACHES;	sand	open water
L01	Concrete sides/soft bottom Trapezoidal Channel	extends to about 600 feet upstream of Camino Las Ramblas	RIVERWASH	sand, cobble	open water, bare ground
L01S02	Underground Conduit	extends to about 600 feet upstream of Camino Las Ramblas	RIVERWASH	Not Accessible	None
M01	Concrete-Lined Rectangle Channel	extends to PCH	BEACHES	sand	open water
M02	Concrete-Lined Rectangle Channel, Underground Conduit	extends to Avenida Estacion	BEACHES	concrete, sand	open water

* NOTE: In locations where the County did not have tidal data avialable, RBF utilized the tides data available from the National Oceanic and Atmospheric Administration (<http://tidesandcurrents.noaa.gov>). The maximum extent of the high tide line over the past 10 years were used to determine the tidal influence. Data Inventory was reviewed for Los Angeles, CA (Station ID: 9410660), which is the closest station to the project sites. Based on the tidal data available, the maximum high tide line is 10.65 feet. This elevation was approximatley located within each facility on Google Earth, and that was used to determine the extend of the tidal influence. This approach was confirmed by Adam Obaza in an e-mail dated March 19, 2014.