LOS ANGELES COUNTY FLOOD CONTROL DISTRICT ENHANCED WATERSHED MANAGEMENT PROGRAMS

Draft Program Environmental Impact Report

Prepared for
County of Los Angeles
Department of Public Works

January 2015

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Acronym List

AB	Assembly Bill
ACS	American Community Survey
AGB	Alamitos Gap Barrier
AOA	Air Operations Area
AQMP	Air Quality Management Plan
AR4	IPCC Fourth Assessment Report
ARMR	Archaeological Resource Management Reports
ASBS	Areas of Special Biological Significance
ASTM	American Society for Testing and Materials
ASTs	Aboveground Storage Tanks
ATCM	Airborne Toxics Control Measure
B.P.	Before Present
BACT	Best Available Control Technology
BAU	Business As-usual
BMP	Best Management Practices
BMPs	Best Management Practices
BWER	Ballona Wetlands Ecological Reserve
C1-C4	Chlordane (tissue), Chrysene
CAA	Clean Air Act
CAAA	CAA Amendments of 1990
CAAQS	California Ambient Air Quality Standards
Cal/OSHA	California Division of Occupational Safety and Health
CalARP	California Accidental Release Prevention
CalEPA	California Environmental Protection Agency
CARB	California Air Resources Board
CB	Catch Basin
CBC	California Building Code
CCAA	California Clean Air Act
CCAP	Community Climate Action Plan
CCAT	California Climate Action Team
CCC	California Coastal Commission
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CDP	Coastal Development Permit
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFCs	Chlorofluorocarbons
CFR	Code of Federal Regulations
CGP	Construction General Permit
CH4	Methane
CHLs	California Historical Landmarks
CIRS	Coastal Interceptor Relief Sewer
CIWMB	California Integrated Waste Management Board
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO2	Carbon Dioxide
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources

Acronym List (cont.)

CWA	Clean Water Act
DGSG	Dominguez Channel Spreading Grounds
DHS	Department of Health Services
DNL	Day-Night Average Noise Level
DOT	Department of Transportation
DTSC	Department of Toxic Substances Control
EIR	environmental impact report
ERP	Emergency Response Plan
ESA	Environmental Site Assessment
ET	Evapotranspiration
EWMP	Enhanced Watershed Management Program
FAA	Federal Aviation Administration
FESA	Federal Endangered Species Act
FHSZs	Fire Hazard Severity Zones
FMMP	Farmland Mapping and Monitoring Program
GHG	Greenhouse Gas
GWP	Global Warming Potential
HAPs	Hazardous Air Pollutants
HFCs	Hydrofluorocarbons
HMBP	Hazardous Materials Business Plan
HR	Hydrologic Region
HVAC	Heating, Ventilation, and Air Conditioning
IC/ID	Illicit Connection / Illicit Discharges
IPCC	Intergovernmental Panel on Climate Change
IRAs	Identified Resource Areas
JWPCP	Joint Water Pollution Control Plant
LACFCD	Los Angeles County Flood Control District
LACFD	Los Angeles County Fire Department
LACOE	Los Angeles County Office of Education
LACSD	Los Angeles County Sanitation Districts
LARWQCB	Los Angeles Regional Water Quality Control Board
LASD	Los Angeles County Sheriff's Department
LAUSD	Los Angeles Unified School District
LCFS	Low Carbon Fuel Standard
LCPs	Local Coastal Programs
LFD	Low-Flow Diversion
LID	Low-Impact Development
LOS	Level of Service
LST	Localized Significance Threshold
LUSTs	Leaking Underground Storage Tanks
MACT	Maximum Achievable Control Technology
MBTA	Migratory Bird Treaty Act
MCM	Minimum Control Measure
ML	Richter Local Magnitude
MMRP	Mitigation Monitoring and Reporting Program
MMT	Million Metric Tons
MOU	Memorandum of Understanding
MPO	Metropolitan Planning Organization
MRZs	Mineral Resource Zones
MS4	Municipal Separate Storm Sewer System

Acronym List (cont.)

N2O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards
NCCP/HCP	Natural Community Conservation Planning/Habitat Conservation Plan
NESHAPs	National Emission Standards for Hazardous Air Pollutants
NH3	Ammonia
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NO	Nitric Oxide
NO2	Nitrogen Dioxide
NOI	Notice of Intent
NOP	Notice of Preparation
NOX	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OEHHA	Office of Environmental Health Hazard Assessment
OES	Office of Emergency Services
OPR	Office of Planning and Research
OSHA	Office of Safety and Health Administration
P-C	Production-Consumption
PEIR	Program Environmental Impact Report
PFCs	Perfluorocarbons
PGA	Peak Ground Acceleration
PHI	Points of Historical Interest
PM10	Particulate Matter (10 micrometers or less)
PM2.5	Particulate Matter (2.5 micrometers or less)
PPV	Peak Particle Velocity
PRDs	Permit Registration Documents
PSD	Prevention of Significant Deterioration
PVC	Polyvinyl Chloride
RAA	Reasonable Assurance Analysis
RCRA	Resource Conservation and Recovery Act
RMP	Risk Management Plan
RMS	Root Mean Square
ROG	Reactive Organic Gases
RWLs	Receiving Water Limitations
RWQCB	Regional Water Quality Control Board
RWQCBs	Regional Water Quality Control Boards
SAR	Second Assessment Report
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SEAs	Significant Ecological Areas
SF6	Sulfur Hexafluoride
SIP	State Implementation Plan
SLIC	Spills, Leaks, Investigations, and Cleanups Program
SMARA	State Surface Mining and Reclamation Act
SMURRF	Santa Monica Urban Runoff Recycling Facility
SO2	Sulfur Dioxide
SO3	Sulfur Trioxide
SO4	Sulfates

Acronym List (cont.)

SOX	Sulfur Oxides
SPCC	Spill Prevention, Control and Countermeasure
SVP	Society for Vertebrate Paleontology
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
SZs	Scientific Resource Zones
TAC	Technical Advisory Committee
TACs	Toxic Air Contaminants
TDS	Total Dissolved Solids
TMDLs	Total Maximum Daily Loads
UCMP	University of California Museum of Paleontology
ULSD	Ultra Low Sulfur Diesel
UNFCCC	United Nations Framework Convention on Climate Change
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USTs	Underground Storage Tanks
UWMP	Urban Water Management Plan
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound
WCBB	West Coast Basin Barrier Project
WDRs	Waste Discharge Requirements
WMA	Watershed Management Area
WMG	Watershed Management Group
WMP	Watershed Management Program
WRP	Water Reclamation Plants
WWII	World War II

EXECUTIVE SUMMARY

ES.1 Introduction

The Los Angeles County Flood Control District (LACFCD) has prepared this Draft Program Environmental Impact Report (Draft PEIR) to provide the public and responsible and trustee agencies with information about the potential effects, both beneficial and adverse, on the local and regional environment associated with implementation of the Enhanced Watershed Management Programs (proposed program). This Draft PEIR has been prepared pursuant to the California Environmental Quality Act (CEQA) of 1970 (amended), codified at California Public Resources Code Sections 21000 et. seq., and the CEQA Guidelines in the Code of Regulations, Title 14, Division 6, Chapter 3.

This document is being circulated to local, state and federal agencies, and to interested organizations and individuals who may wish to review and comment on the Draft PEIR. Publication of this Draft PEIR marks the beginning of a 45-day public review period, during which written comments may be directed to the address below. Comments on the project should be directed to:

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ES.2 Background

The Los Angeles County Flood Control District (LACFCD) was created in 1915 when the State Legislature adopted the Los Angeles County Flood Control Act to provide flood risk management, water conservation, and recreation and aesthetic enhancement within its boundaries. The LACFCD owns and maintains a broad network of flood control facilities that convey stormwater to the local rivers and ultimately to the ocean. The LACFCD is governed as a separate entity by the County of Los Angeles Board of Supervisors, and is operated by the County's Department of Public Works. The LACFCD, the County of Los Angeles, and 84 incorporated cities within Los Angeles County (collectively referred to as Permittees) are covered under a Municipal Separate Storm Sewer System (MS4) Permit (Order No. R4-2012-0175; National Pollutant Discharge Elimination System [NPDES] Permit No. CAS004001) for the discharge of urban runoff to waters of the United States. The purpose of the MS4 Permit is to achieve and

maintain water quality objectives to protect beneficial uses of the receiving waters in the Los Angeles region. Each of the Permittees identified in the MS4 permit is responsible for meeting the conditions of the permit for MS4 discharges occurring within their jurisdiction.

The 2012 MS4 Permit for Los Angeles County gives Permittees the option of implementing an innovative approach to Permit compliance through development of an Enhanced Watershed Management Program (EWMP). The EWMPs will identify potential and priority structural and non-structural Best Management Practices (BMPs) within the region's stormwater collection system to improve runoff water quality. The LACFCD, along with participating Permittees, has opted to exercise this option and has submitted to the LARWQCB 12 separate Notices of Intent (NOIs) for the development of EWMPs within 12 distinct watershed groups (refer to **Figure 1-1**). Implementation of the EMWPs would be the responsibility of each Permittee and would occur following approval of the EWMPs by the LARWQCB.

The LACFCD, as a regional agency, is a member of each of the 12 EWMP working groups, and as such provides a commonality within each EWMP group. However, LACFCD does not have a special status or authority designated by the MS4 Permit over any of the other Permittees. The LACFCD will be working with the applicable Permittees in all 12 EWMP watersheds as an equal partner to identify the types and locations of BMPs needed to achieve permit compliance within each watershed.

The timeline identified in the MS4 Permit requires that Permittees submit the EWMP to the LARWQCB by June 28, 2015, in order to be in compliance with the permit conditions. The LACFCD recognizes that implementation of the EWMPs may potentially result in changes to environmental conditions. As a result, the LACFCD has prepared this Program Environmental Impact Report (PEIR) in compliance with the California Environmental Quality Act (CEQA) to provide the public and the responsible and trustee agencies with information about the potential effects on the local and regional environment associated with implementation of the EWMPs. The LACFCD will submit the PEIR to its governing body, the Los Angeles County Board of Supervisors, for approval prior to submittal of the EWMPs. The EWMPs will be submitted by each EWMP to the LARWQCB.

This PEIR describes and evaluates each of the EWMPs being prepared by the Permittees collectively. The discretionary action prompting the need for CEQA compliance is the submittal of the completed EWMPs to the LARWQCB. The EWMPs will identify management strategies including hundreds of structural Best Management Practices (BMPs) that may be designed and implemented by the Permittees to meet permit compliance objectives. A few of the BMPs are currently well defined but most are yet to be fully developed under the EWMPs. A set of priority BMPs will be detailed in each of the EWMPs; these are being developed in parallel with the PEIR. The PEIR describes the details that are available for each of the EWMPs currently under preparation by the EWMP working groups.

The PEIR analysis is not intended to focus on the site-specific construction and operation details of each management strategy and project included in the EWMP. Rather, this PEIR serves as a first-tier environmental document that focuses on the effects of implementing the EWMPs to

reduce urban runoff pollution. The analysis assesses worst case situations where construction or operation of projects may significantly impact environmental resources. The analysis outlines mitigation strategies to be followed by implementing agencies to avoid or minimize impacts wherever feasible.

LACFCD is the CEQA Lead Agency for this PEIR. This PEIR can be used by the LACFCD or other Permittees to streamline environmental review of individual EWMP projects. As individual projects identified in the EWMPs are fully developed, the implementing agency (i.e., the Permittee responsible for implementing the project) will conduct CEQA analysis for individual projects as appropriate or may determine that no additional CEQA analysis is required or that a project is exempt from CEQA.

ES.3 Project Objectives

The primary goals and objectives of the EWMPs are:

- To collaborate among agencies (Permittee jurisdictions) across the watershed to promote more cost-effective and multi-beneficial water quality improvement projects to comply with the MS4 Permit.
- To develop watershed-wide EWMPs that will, once implemented, remove or reduce pollutants from dry- and wet-weather urban runoff in a cost-effective manner.
- To reduce the impact of stormwater and non-stormwater on receiving water quality.

ES.4 Project Description

The 12 EWMPs will vary for each watershed group, but will generally provide the opportunity for Permittees to customize their stormwater programs to achieve compliance with applicable receiving water limitations (RWLs) and water-quality-based effluent limits (WQBELs) in accordance with the MS4 Permit through implementation of stormwater best management practices (BMPs) or watershed control measures. BMPs vary in function and type, with each BMP providing unique design characteristics and benefits from implementation. The overarching goal of BMPs in the EWMP is to reduce the impact of stormwater and non-stormwater on receiving water quality and address the water quality priorities as defined by the MS4 Permit. The development of each EWMP will involve the evaluation and selection of multiple BMP types, including nonstructural (institutional) and distributed, centralized, and regional structural watershed control measures, that will be implemented to meet compliance goals and strategies under the 2012 MS4 Permit. The LACFCD has limited jurisdictional authority for ordinance and code enactment or enforcement and therefore is limited in nonstructural BMPs to education and outreach measures. The structural watershed control measures that will be implemented by the LACFCD will be multi-benefit stormwater projects that emphasize flood risk mitigation and water conservation and supply.

The LACFCD has a vested interest in increasing opportunities for stormwater capture and groundwater recharge as a means of assisting local water supply augmentation. The LACFCD will be working with the applicable Permittees and other stakeholders in all 12 EWMP

watersheds to develop such projects. The EWMPs will be implemented by the Permittees that have jurisdiction within each EWMP area. The implementing agencies will be responsible for the contents of the EWMPs affecting their jurisdictions and for implementing the projects developed by the EWMPs..

Structural control measures are constructed BMPs that reduce the impact of stormwater and non-stormwater on receiving water quality. They are broken into three categories:

- ***Distributed Structural BMPs***, which treat runoff close to the source and are typically implemented at a single- or few-parcel level (e.g., facilities typically serving a contributing area less than one acre).
- ***Centralized Structural BMPs***, which treat runoff from a contributing area of multiple parcels (e.g., facilities typically serving a contributing area on the order of tens or hundreds of acres or larger).
- ***Regional Structural BMPs***, which are meant to retain the 85th percentile storm over 24 hours from a contributing area. Generally, the 85th percentile storm is approximately 0.75 inches over 24 hours

Whether distributed, centralized, or regional, the major structural BMP functions are infiltration, treatment, and storage, which may be used individually or combination:

- ***Infiltration,*** where runoff is directed to percolate into the underlying soils. Infiltration generally reduces the volume of runoff and increases groundwater recharge.
- ***Treatment***, where pollutants are removed through various unit processes, including filtration, settling, sedimentation, sorption, straining, and biological or chemical transformations.
- ***Storage***, where runoff is captured, stored (detained), and slowly released into downstream waters. Storage can reduce the peak flow rate from a site, but does not directly reduce runoff volume.

The types of structural BMPs to be implemented will vary between EWMPs, but most EMWPs will include a variety of distributed, centralized, and regional BMPs.

These are policies, actions, and activities which are intended to minimize or eliminate pollutant sources. Most institutional BMPs are implemented to meet Minimum Control Measure (MCM) requirements in the MS4 permit; MCMs are considered a subset of institutional BMPs. These BMPs are not constructed, but may have costs associated with the procurement and installation of items such as signage or spill response kits

ES.5 Project Alternatives

An EIR must describe a range of reasonable alternatives to the proposed project or alternative project locations that could feasibly attain most of the basic project objectives and would avoid or substantially lessen any of the significant environmental impacts to the proposed project. The

alternatives analysis must include the "No Project Alternative" as a point of comparison. The No Project Alternative includes existing conditions and reasonably foreseeable future conditions that would exist if the proposed project were not approved (CEQA Guidelines §15126.6).

ES.6 Summary of Impacts

Table ES-1, at the end of this chapter, presents a summary of the impacts and mitigation measures identified for the proposed project. The complete impact statements and mitigation measures are presented in Chapter 3. The level of significance for each impact was determined using significance criteria (thresholds) developed for each category of impacts; these criteria are presented in the appropriate sections of Chapter 3. Significant impacts are those adverse environmental impacts that meet or exceed the significance thresholds; less-than-significant impacts would not exceed the thresholds. Table ES-1 indicates the measures that will avoid, minimize, or otherwise reduce significant impacts to a less-than-significant level if implemented by the Permittees.

ES.7 Areas of Controversy

Several comment letters from agency and public comments were received during the scoping period. Public comments received are provided in Appendix A of this PEIR. Some of the comments from non-governmental organizations and the public expressed concerns regarding the lack of project-specific details provided in the NOP for individual BMPs. Several comments were received questioning the funding strategies to be employed by Permittees. The full list of comments highlighting areas of potential controversy received during the public scoping period is included in Appendix A.

ES.8 Issues to be Resolved

Section 15123(b)(3) of the *CEQA Guidelines* requires that an EIR contain issues to be resolved, which includes the choice among alternatives and whether or how to mitigate significant impacts. The following major issues are to be resolved:

- Determine whether the PEIR adequately describes the environmental impacts of the proposed program;
- Choose among alternatives;
- Determine whether the recommended mitigation measures should be adopted or modified; and
- Determine whether additional mitigation measures need to be applied to the project.

ES.9 Organization of this PEIR

This Draft PEIR is organized into the following chapters and appendices:

Executive Summary. This chapter summarizes the contents of the Draft PEIR.

Chapter 1, Introduction and Project Background. This chapter discusses the CEQA process and the purpose of the PEIR and provides background info on the proposed project.

Chapter 2, Project Description. This chapter provides an overview of the proposed program, describes the need for and objectives of the proposed program, and provides detail on the characteristics of the proposed program.

Chapter 3, Environmental Setting, Impacts and Mitigation Measures. This chapter describes the environmental setting and identifies impacts of the proposed program for each of the following environmental resource areas; Aesthetics; Air Quality; Biological Resources; Cultural Resources; Geology and Soils / Mineral Resources; Greenhouse Gas Emissions; Hazards and Hazardous Waste; Hydrology and Water Quality; Land Use and Planning / Agriculture; Noise; Population and Housing; Public Services / Recreation; Transportation and Circulation; and Utilities and Service Systems. Measures to mitigate the impacts of the proposed program are presented for each resource area.

Chapter 4, Cumulative Impacts. This chapter analyzes the potential for the proposed program to have significant cumulative effects when combined with other past, present, and reasonably foreseeable future projects in each resource area's cumulative geographic scope.

Chapter 5, Growth Impacts. This chapter identifies areas of the EIR where significant environmental effects that cannot be avoided would occur, if any. It will also include an analysis of growth inducement impacts that would be provided by the program.

Chapter 6, Alternatives. This chapter presents an overview of the alternatives development process and describes the alternatives to the proposed program that were considered.

Chapter 7, Organizations and Persons Contacted.

Chapter 8, Report Preparers. This chapter identifies authors involved in preparing this Draft DEIR, including persons and organizations consulted.

Chapter 9, References.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE ENHANCED WATERSHED MANAGEMENT PROGRAMS

Impacts	Mitigation Measures	Significance before Mitigation	Significance if Mitigation is Implemented
Aesthetics			
3.1-1: The proposed program could create a substantial adverse effect on a scenic vista.	**AES-1:** Aboveground structures shall be designed to be consistent with local zoning codes and applicable design guidelines and to minimize features that contrast with neighboring development.	Significant	Less than significant
3.1-2: The proposed program could substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.	Implementation of **AES-1**	Significant	Less than significant
3.1-3: The proposed program could substantially degrade the existing visual character or quality of the site and its surroundings.	Implementation of **AES-1** **AES-2:** Implementing agencies shall develop BMP maintenance plans that are approved concurrently with each structural BMP approval. The maintenance plans must include measures to ensure functionality of the structural BMPs for the life of the BMP. These plans may include general maintenance guidelines that apply to a number of smaller distributed BMPs.	Significant	Less than significant
3.1-4: The proposed program could create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	None required	Less than significant	Not applicable
Air Quality			
3.2-1: The project could conflict with or obstruct implementation of the applicable air quality plan.	None required	Less than significant	Not applicable
3.2-2: The project could violate any air quality standard or contribute substantially to an existing or projected air quality violation.	**AIR-1:** Implementing agencies shall require for large Regional or Centralized BMPs the use of low-emission equipment meeting Tier II emissions standards at a minimum and Tier III and IV emissions standards where available as CARB-required emissions technologies become readily available to contractors in the region **AIR-2:** For large construction efforts that may result in significant air emissions, implementing agencies shall encourage contractors to use lower-emission equipment through the bidding process where appropriate.	Significant	Significant and unavoidable for construction; Less than significant for operations.

TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impacts	Mitigation Measures	Significance before Mitigation	Significance if Mitigation is Implemented
3.2-3: The program could result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).	Implementation of **AIR-1** and **AIR-2**	Significant	Significant and unavoidable for construction; less than significant for operations.
3.2-4: The project could expose sensitive receptors to substantial pollutant concentrations.	**AIR-3:** For large construction efforts associated with Regional or Centralized BMPs, implementing agencies shall conduct a project-specific LST analysis where necessary to determine local health impacts to neighboring land uses. Where it is determined that construction emissions would exceed the applicable LSTs or the most stringent applicable federal or state ambient air quality standards, the structural BMP project shall reduce its daily construction intensity (e.g., reducing the amount of equipment used daily, reducing the amount of soil graded/excavated daily) to a level where the structural BMP project's construction emissions would no longer exceed SCAQMD's LSTs or result in pollutant emissions that would cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standards.	Significant	Less than significant
3.2-5: The proposed program could create objectionable odors affecting a substantial number of people.	**AIR-4:** During planning of structural BMPs, implementing agencies shall assess the potential for nuisance odors to affect a substantial number of people. BMPs that minimize odors shall be considered the priority when in close proximity to sensitive receptors.	Significant	Less than significant
Biological Resources			
3.3-1: The proposed project could have a substantial adverse effect, either directly or through habitat modifications, on any sensitive species identified as special-status in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	**BIO-1:** Prior to approving a Regional or Centralized BMP., the Permittee shall conduct an evaluation of the suitability of the BMP location. Appropriate BMP sites should avoid impacting large areas of native habitats including upland woodlands and riparian forests that support sensitive species to the extent feasible. The evaluation shall include an assessment of potential downstream impacts resulting from flow diversions. **BIO-2:** Prior to ground disturbing activities in areas that could support sensitive biological resources, a habitat assessment shall be conducted by a qualified biologist to determine the potential for special-status wildlife species to occur within	Significant	Less than significant

TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impacts	Mitigation Measures	Significance before Mitigation	Significance if Mitigation is Implemented
	affected areas, including areas directly or indirectly impacted by construction or operation of the BMPs. **BIO-3:** If a special-status wildlife species is determined to be present or potentially present within the limits of construction activities, a qualified biologist shall conduct pre-construction surveys of proposed work zones and within an appropriately sized buffer around each area as determined by a qualified biologist within 14 days prior to ground disturbing activities. Any potential habitat capable of supporting a special-status wildlife species shall be flagged for avoidance if feasible. **BIO-4:** If avoidance of special-status species or sensitive habitats that could support special-status species (including, but not limited to, critical habitat, riparian habitat, and jurisdictional wetlands/waters) is not feasible, the Permittee shall consult with the appropriate regulating agency (USACE/USFWS or CDFW) to determine a strategy for compliance with the Endangered Species Act, California Fish and Game Code, and other regulations protecting special-status species and sensitive habitats. The Permittee shall identify appropriate impact minimization measures and compensation for permanent impacts to sensitive habitats and species in consultation with regulatory agencies. Construction of the project will not begin until the appropriate permits from the regulatory agencies are approved. **BIO-5:** If construction and vegetation removal is proposed between February 1 and August 31, a qualified biologist shall conduct a pre-construction survey for breeding and nesting birds and raptors within 500-feet of the construction limits to determine and map the location and extent of breeding birds that could be affected by the project. Active nest sites located during the pre-construction surveys shall be avoided until the adults and young are no longer reliant on the nest site for survival as determined by a qualified biologist. **BIO-6:** All construction areas, staging areas, and right-of-ways shall be staked, flagged, fenced, or otherwise clearly delineated to restrict the limits of construction to the minimum necessary near areas that may support special-status wildlife species as determined by a qualified biologist. **BIO-7:** Prior to construction in areas that could support special status plants, a qualified botanist shall conduct a pre-		

TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impacts	Mitigation Measures	Significance before Mitigation	Significance if Mitigation is Implemented
	construction floristic inventory and focused rare plant survey of project areas to determine and map the location and extent of special-status plant species populations within disturbance areas. This survey shall occur during the typical blooming periods of special-status plants with the potential to occur. The plant survey shall follow the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (November 24, 2009). **BIO-8:** If temporary construction-related impacts to special-status plant populations are identified within a disturbance area, the implementing agencies shall prepare and implement a special-status species salvage and replanting plan. The salvage and replanting plan shall include measures to salvage, replant, and monitor the disturbance area until native vegetation is re-established under the direction of CDFW and USFWS.		
3.3-2: The proposed project could have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS.	Implement **BIO-1** through **BIO-8**	Significant	Less than significant
3.3-3: The proposed project could have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	Implement **BIO-1** through **BIO-8** **BIO-9:** Prior to construction, a qualified wetland delineator shall be retained to conduct a formal wetland delineation in areas where potential jurisdictional resources (i.e., wetlands or drainages) subject to the jurisdiction of USACE, RWQCB, and CDFW, may be affected by the project. If jurisdictional resources are identified in the EWMP area and would be directly or indirectly impacted by individual projects, the qualified wetland delineator shall prepare a jurisdictional delineation report suitable for submittal to USACE, RWQCB, and CDFW for purposes of obtaining the appropriate permits. Habitat mitigation and compensation requirements shall be implemented prior to construction in accordance with Mitigation Measure BIO-4.	Significant	Less than significant
3.3-4: The proposed project could interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the	None required	Less than significant	Not applicable

TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impacts	Mitigation Measures	Significance before Mitigation	Significance if Mitigation is Implemented
use of native wildlife nursery sites.			
3.3-5: The proposed project could conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	**BIO-10:** Oak trees and other protected trees shall be avoided to the extent feasible. If trees may be impacted by project construction, a certified arborist shall conduct a tree inventory of the construction impact area. If any oak trees or other protected trees will be impacted by BMP construction, the implementing agency shall obtain any required County or City permits.	Significant	Less than significant
3.3-6: The proposed project could conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.	None required	Less than significant	Not applicable
Cultural Resources			
3.4-1: The proposed program could cause a substantial adverse change in the significance of an historical resource as defined in §15064.5.	**CUL-1:** For individual EWMP projects that could impact buildings or structures (including infrastructure) 45 years old or older, implementing agencies shall ensure that a historic built environment survey is conducted or supervised by a qualified historian or architectural historian meeting the Secretary of the Interior's Professional Qualification Standards for Architectural History. Historic built environment resources shall be evaluated for their eligibility for listing in the CRHR or local register prior to the implementing agency's approval of project plans. If eligible resources that would be considered historical resources under CEQA are identified, demolition or substantial alteration of such resources shall be avoided. If avoidance is determined to be infeasible, the implementing agency shall require the preparation of a treatment plan to include, but not be limited to, photo-documentation and public interpretation of the resource. The plan will be submitted to the implementing agency for review and approval prior to implementation. **CUL-2:** Implementing agencies shall ensure that individual EWMP projects that require ground disturbance shall be subject to a Phase I cultural resources inventory on a project-specific basis prior to the implementing agency's approval of project plans. The study shall be conducted or supervised by a qualified archaeologist, defined as an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology, and shall be conducted in	Significant	Significant and Unavoidable

TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impacts	Mitigation Measures	Significance before Mitigation	Significance if Mitigation is Implemented
	consultation with the local Native American representatives expressing interest. The cultural resources inventory shall include a cultural resources records search to be conducted at the South Central Coastal Information Center; scoping with the NAHC and with interested Native Americans identified by the NAHC; a pedestrian archaeological survey where deemed appropriate by the qualified archaeologist; and formal recordation of all identified archaeological resources on California Department of Parks and Recreation 523 forms and significance evaluation of such resources presented in a technical report following the guidelines in *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format*, Department of Parks and Recreation, Office of Historic Preservation, State of California, 1990. If potentially significant archaeological resources are encountered during the survey, the implementing agency shall require that the resources are evaluated by the qualified archaeologist for their eligibility for listing in the CRHR and for significance as a historical resource or unique archaeological resource per *CEQA Guidelines* Section 15064.5. Recommendations shall be made for treatment of these resources if found to be significant, in consultation with the implementing agency and the appropriate Native American groups for prehistoric resources. Per *CEQA Guidelines* Section 15126.4(b)(3), preservation in place shall be the preferred manner of mitigation to avoid impacts to archaeological resources qualifying as historical resources. Methods of avoidance may include, but shall not be limited to, project re-route or re-design, project cancellation, or identification of protection measures such as capping or fencing. Consistent with *CEQA Guidelines* Section 15126.4(b)(3)(C), if it is demonstrated that resources cannot be avoided, the qualified archaeologist shall develop additional treatment measures, which may include data recovery or other appropriate measures, in consultation with the implementing agency, and any local Native American representatives expressing interest in prehistoric or tribal resources. If an archaeological site does not qualify as an historical resource but meets the criteria for a unique archaeological resource as defined in Section 21083.2, then the site shall be treated in accordance with the provisions of Section 21083.2. **CUL-3:** The implementing agency shall retain archaeological		

TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impacts	Mitigation Measures	Significance before Mitigation	Significance if Mitigation is Implemented
	monitors during ground-disturbing activities that have the potential to impact archaeological resources qualifying as historical resources or unique archaeological resources, as determined by a qualified archaeologist in consultation with the implementing agency, and any local Native American representatives expressing interest in the project. Native American monitors shall be retained for projects that have a high potential to impact sensitive Native American resources, as determined by the implementing agency in coordination with the qualified archaeologist. **CUL-4:** During project-level construction, should subsurface archaeological resources be discovered, all activity in the vicinity of the find shall stop and a qualified archaeologist shall be contacted to assess the significance of the find according to *CEQA Guidelines* Section 15064.5. If any find is determined to be significant, the archaeologist shall determine, in consultation with the implementing agency and any local Native American groups expressing interest, appropriate avoidance measures or other appropriate mitigation. Per *CEQA Guidelines* Section 15126.4(b)(3), preservation in place shall be the preferred means to avoid impacts to archaeological resources qualifying as historical resources. Methods of avoidance may include, but shall not be limited to, project re-route or re-design, project cancellation, or identification of protection measures such as capping or fencing. Consistent with *CEQA Guidelines* Section 15126.4(b)(3)(C), if it is demonstrated that resources cannot be avoided, the qualified archaeologist shall develop additional treatment measures, such as data recovery or other appropriate measures, in consultation with the implementing agency and any local Native American representatives expressing interest in prehistoric or tribal resources. If an archaeological site does not qualify as an historical resource but meets the criteria for a unique archaeological resource as defined in Section 21083.2, then the site shall be treated in accordance with the provisions of Section 21083.2.		
3.4-2: The program could cause a substantial adverse change in the significance of unique archaeological resources as defined in §15064.5.	Implementation of **CUL-2** through **CUL-4**	Significant	Less than significant

TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impacts	Mitigation Measures	Significance before Mitigation	Significance if Mitigation is Implemented
3.4-3: The program could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	**CUL-5:** For individual structural BMP projects that require ground disturbance, the implementing agency shall evaluate the sensitivity of the project site for paleontological resources. If deemed necessary, the implementing agency shall retain a qualified paleontologist to evaluate the project and provide recommendations regarding additional work, potentially including testing or construction monitoring. **CUL-6:** In the event that paleontological resources are discovered during construction, the implementing agency shall notify a qualified paleontologist. The paleontologist will evaluate the potential resource, assess the significance of the find, and recommend further actions to protect the resource.	Significant	Less than significant
3.4-4: The program could disturb any human remains, including those interred outside of a formal cemetery.	**CUL-7:** The implementing agency shall require that, if human remains are uncovered during project construction, work in the vicinity of the find shall cease and the County Coroner shall be contacted to evaluate the remains, following the procedures and protocols set forth in Section 15064.5 (e)(1) of the CEQA Guidelines. If the County Coroner determines that the remains are Native American, the Coroner will contact the Native American Heritage Commission, in accordance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code 5097.98 (as amended by AB 2641). The NAHC will then designate a Most Likely Descendant of the deceased Native American, who will engage in consultation to determine the disposition of the remains.	Significant	Less than significant
Geologic and Mineral Resources			
3.5-1: The proposed program could locate new facilities in areas susceptible to seismic impacts such as (1) rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault, (2) strong seismic groundshaking, or (3) seismically induced liquefaction or landslides, which could expose people, structures, or habitat to potential risk of loss, damage, injury, or death.	None required	Less than significant	Not applicable

TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impacts	Mitigation Measures	Significance before Mitigation	Significance if Mitigation is Implemented
3.5-2: The proposed program could result in substantial soil erosion or the loss of topsoil.	None required	Less than significant	Not applicable
3.5-3: The proposed program could be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the program, and potentially result in on-site or off-site non-seismically induced geologic hazards such as landslides, lateral spreading, subsidence, collapse or sinkholes, settlement, or slope failure.	**GEO-1:** Prior to approval of infiltration BMPs, implementing agencies shall conduct a geotechnical investigation of each infiltration BMP site to evaluate infiltration suitability. If infiltration rates are sufficient to accommodate an infiltration BMP, the geotechnical investigation shall recommend design measures necessary to prevent excessive lateral spreading that could destabilize neighboring structures. Implementing agencies shall implement these measures in project designs.	Significant	Less than significant
3.5-4: The proposed program could be located on expansive soil as defined in 24 CCR 1803.5.3 of the California Building Code (2013), creating substantial risks to life or structures.	None required	Less than significant	Not applicable
3.5-5: The proposed program could have soils incapable of adequately supporting the use of a septic tank or alternative wastewater treatment systems where sewers are not available for the disposal of wastewater.	None required	Less than significant	Not applicable
3.5-6: The proposed program could result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state or a locally important mineral resource recovery site delineated on a local General Plan, Specific Plan, or other land use plan.	None required	Less than significant	Not applicable
Cumulative Impacts	**GEO-2:** Prior to installing BMPs designed to recharge local groundwater supplies, the Implementing Agency shall notify local groundwater managers including the Upper Los Angeles River Area Water Master, the Water Replenishment District of Southern California, or the San Gabriel Water Master as well as local water producers such as local municipalities and water companies. The Implementing Agency shall coordinate BMP siting efforts with groundwater managers and producers to mitigate high groundwater levels while increasing local water supplies.	Significant	Less than significant
Greenhouse Gas Emissions			

TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impacts	Mitigation Measures	Significance before Mitigation	Significance if Mitigation is Implemented
3.6-1: The proposed program could generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.	None required	Less than significant	Not applicable
3.6-2: The proposed program could conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.	None required	Less than significant	Not applicable
Hazards and Hazardous Materials			
3.7-1: The proposed program would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or the accidental release during construction and maintenance activities.	None required	Less than significant	Not applicable
3.7-2: The proposed program could create a significant hazard to the public or the environment through the accumulation of potentially hazardous materials into BMPs.	**HAZ-1:** Implementing agencies shall prepare and implement maintenance practices that include periodic removal and replacement of surface soils and media that may accumulate constituents that could result in further migration of constituents to sub-soils and groundwater. A BMP Maintenance Plan shall be prepared by Implementing Agencies upon approval of the individual BMP projects that identifies the frequency and procedures for removal and/or replacement of accumulated debris, surface soils and/or media (to depth where constituent concentrations do not represent a hazardous conditions and/or have the potential to migrate further and impact groundwater) to avoid accumulation of hazardous concentrations and the potential to migrate further to sub-soils and groundwater. The BMP Maintenance Plan may consist of a general maintenance guideline that applies to several types of smaller distributed BMPs. For smaller distributed BMPs on private property, these plans may consist of a maintenance covenant that includes requirements to avoid the accumulation of hazardous concentrations in these BMPs that may impact underlying sub-soils and groundwater. Structural BMPs shall be designed to prevent migration of constituents that may impact groundwater.	Significant	Less than significant
3.7-3: The proposed program could emit hazardous emissions or handle hazardous	Implementation of **HAZ-1**	Less than significant	Not applicable

TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impacts	Mitigation Measures	Significance before Mitigation	Significance if Mitigation is Implemented
or acutely hazardous materials, substances, or waste within one-quarter mile of an existing school.			
3.7-4: The proposed program could be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, could create a significant hazard to the public or the environment.	**HAZ-2**: Prior to the initiation of any construction requiring ground-disturbing activities in areas where hazardous material use or management may have occurred, the implementing agencies shall complete a Phase I Environmental Site Assessment (ESA) in accordance with American Society for Testing and Materials (ASTM) Standard E1527-13 for each construction site. Any recommended follow up sampling (Phase II activities) set forth in the Phase I ESA shall be implemented prior to construction. The results of Phase II studies, if necessary, shall be submitted to the local overseeing agency and any required remediation or further delineation of identified contamination shall be completed prior to commencement of construction.	Significant	Less than significant
3.7-5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, for a project within the vicinity of a private airstrip, the project could result in a safety hazard for people residing or working in the project area.	**HAZ-3:** Implementing Agencies shall require that those BMPs that are within an airport land use plan area are compatible with criteria specified in FAA Advisory Circular No: 150/5200-33B (FAA, 2007). If the proposed BMP is within the minimum separation criteria, the Implementing Agency shall consult with the airport and collaboratively evaluate whether the potential increase in wildlife hazards can be mitigated.	Significant	Less than significant
3.7-6: The proposed program could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	None required	Less than significant	Not applicable
3.7-7: The proposed program could expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.	None required	Less than significant	Not applicable
Hydrology and Water Quality			
3.8-1: The proposed project would result in higher groundwater levels and could	**HYDRO-1:** Prior to approving an infiltration BMP, the Permittee shall conduct an evaluation of the suitability of the BMP location. Appropriate infiltration BMP sites should avoid	Significant	Less than significant

TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impacts	Mitigation Measures	Significance before Mitigation	Significance if Mitigation is Implemented
potentially affect groundwater quality.	areas with low permeability where recharge could adversely affect neighboring subsurface infrastructure. **HYDRO-2:** Prior to approving an infiltration BMP, the Permitee shall identify pre-treatment technologies, type, and depth of filtration media; depth to groundwater; and other design considerations necessary to prevent contaminants from impacting groundwater quality. The design shall consider stormwater quality data within the BMP's collection area to assess the need and type of treatment and filtration controls. Local design manuals and ordinances requiring minimum separation distance to groundwater shall also be met as part of the design. **HYDRO-3:** Prior to the installation of an infiltration BMP, the Permitee shall conduct a database review for contaminated groundwater sites within a quarter mile of the proposed infiltration facility. The Permittee shall identify whether any contaminated groundwater plumes are present and whether coordination with the local and state environmental protection overseeing agency and responsible party is warranted prior to final design of infiltration facility.		
3.8-2: The proposed project could substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river, or by other means, in a manner that would result in substantial erosion or siltation on- or off-site.	None required	Less than significant	Not applicable
3.8-3: The project could substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river or, by other means, substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site.	None required	Less than significant	Not applicable
3.8-4: The proposed project could create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	None required	Less than significant	Not applicable

TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impacts	Mitigation Measures	Significance before Mitigation	Significance if Mitigation is Implemented
3.8-5: The project could place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other authoritative flood hazard delineation map.	None required	No impact	Not applicable
3.8-6: The project could place within a 100-year flood hazard area structures that would impede or redirect flood flows.	None required	Less than significant	Not applicable
3.8-7: The proposed project could expose structures to a significant risk of loss, including flooding as a result of the failure of a levee or dam.	None required	Less than significant	Not applicable
3.8-8: The proposed project could place structures in areas subject to inundation by seiche, tsunami, or mudflow.	None required	Less than significant	Not applicable
Land Use and Agriculture			
3.9-1: The proposed program could physically divide an established community.	None required.	No Impact	Not applicable
3.9-2: The proposed program could conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the program (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.	None required	No Impact	Not applicable
3.9-3: The proposed program could conflict with any applicable habitat conservation plan or natural community conservation plan.	None required	No Impact	Not applicable
3.9-4: The proposed program could convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping	None required	No Impact	Not applicable

TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impacts	Mitigation Measures	Significance before Mitigation	Significance if Mitigation is Implemented
and Monitoring Program of the California Resources Agency, to non-agricultural use. The proposed program could involve other changes in the existing environment which, due to their location or nature, could result in conversion of agricultural land to non-agricultural use or conversion of forest land to non-forest use.			
3.9-5: The proposed program could conflict with existing zoning for agricultural use, or a Williamson Act contract.	None required	No Impact	Not applicable
3.9-6: The proposed program could conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)). The proposed program could result in the loss of forest land or conversion of forest land to non-forest use.	None required	No Impact	Not applicable
Noise			
3.10-1: The proposed program could result in exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	**NOISE-1:** The implementing agencies shall implement the following measures during construction as needed:: • Include design measures necessary to reduce the construction noise levels where feasible. These measures may include noise barriers, curtains, or shields. • Place noise-generating construction activities (e.g., operation of compressors and generators, cement mixing, general truck idling) as far as possible from the nearest noise-sensitive land uses. • Locate stationary construction noise sources as far from adjacent noise-sensitive receptors as possible. • If construction is to occur near a school, the construction contractor shall coordinate the with school administration in order to limit disturbance to the campus. Efforts to limit construction activities to non-school days shall be encouraged.	Significant	Significant and unavoidable for construction; less than significant for operations

TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impacts	Mitigation Measures	Significance before Mitigation	Significance if Mitigation is Implemented
	• For the centralized and regional BMP projects located adjacent to noise-sensitive land uses, identify a liaison for these off-site sensitive receptors, such as residents and property owners, to contact with concerns regarding construction noise and vibration. The liaison's telephone number(s) shall be prominently displayed at construction locations. • For the centralized and regional BMP projects located adjacent to noise-sensitive land uses, notify in writing all landowners and occupants of properties adjacent to the construction area of the anticipated construction schedule at least 2 weeks prior to groundbreaking. **NOISE-2:** All structural BMPs that employ mechanized stationary equipment that generate noise levels shall comply with the applicable noise standards established by the implementing agency with jurisdiction over the structural BMP site. The equipment shall be designed with noise-attenuating features (e.g., enclosures) and/or located at areas (e.g., belowground) where nearby noise-sensitive land uses would not be exposed to a perceptible noise increase in their noise environment.		
3.10-2: The proposed program could result in exposure of persons to, or generation of, excessive groundborne vibration.	None required	Less than significant	Not applicable
3.10-3: The proposed program could result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.	Implementation of **NOISE-1** and **NOISE-2**	Significant	Less than significant
3.10-4: The proposed program could result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.	Implementation of **NOISE-1**	Significant	Significant and unavoidable
3.10-5: For a project located within an airport land use plan area, or, where such a plan has not been adopted, in an area within 2 miles of a public airport or public use airport, implementation of the proposed program could expose people residing or working in the area to excessive noise	None required	Less than significant	Not applicable

TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impacts	Mitigation Measures	Significance before Mitigation	Significance if Mitigation is Implemented
levels.			
3.10-6: For a project located in the vicinity of a private airstrip, the proposed program could expose people residing or working in the project area to excessive noise levels.	None required	Less than significant	Not applicable
Population and Housing and Environmental Justice			
3.11-1: Implementation of the proposed program could induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).	None required	No Impact	Not applicable
3.11-2: Implementation of the proposed program could displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.	None required	No Impact	Not applicable
3.11-3: Implementation of the proposed program could displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.	None required	No Impact	Not applicable
3.11-4: Implementation of the proposed program could affect the health or environment of minority or low income populations disproportionately.	None required	Less than significant	Not applicable
Public Services and Recreation			
3.12-1: The proposed program could result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered governmental fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection services.	**PS-1:** The Permittee implementing the EWMP project shall provide reasonable advance notification to the service providers such as fire, police, local businesses, home owners and residents of adjacent to and within areas potentially affected by the proposed EWMP project about the nature, extent and duration of construction activities. Interim updates should be provided to inform them of the status of the construction activities.	Significant	Less than significant

TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impacts	Mitigation Measures	Significance before Mitigation	Significance if Mitigation is Implemented
3.12-2: The proposed program could result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered governmental police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection services.	None required	Less than significant	Not applicable
3.12-3: The proposed program could result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools.	None required	Less than significant	Not applicable
3.12-4: The proposed program could increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.	None required	Less than significant	Not applicable
3.12-5: The proposed program could include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.	None required	Less than significant	Not applicable
Transportation and Circulation			
3.13-1: The proposed program could intermittently and temporarily increase traffic levels and traffic delays due to vehicle trips generated by construction workers and construction vehicles on area roadways.	**TRAF-1:** For projects that may affect traffic, implementing agencies shall require that contractors prepare a construction traffic control plan. Elements of the plan should include, but are not necessarily limited to, the following: • Develop circulation and detour plans to minimize impacts to local street circulation. Use haul routes minimizing truck traffic on local roadways to the extent possible. • To the extent feasible, and as needed to avoid adverse	Significant	Less than significant

TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impacts	Mitigation Measures	Significance before Mitigation	Significance if Mitigation is Implemented
	impacts on traffic flow, schedule truck trips outside of peak morning and evening commute hours. • Install traffic control devices as specified in Caltrans' Manual of Traffic Controls for Construction and Maintenance Work Zones where needed to maintain safe driving conditions. Use flaggers and/or signage to safely direct traffic through construction work zones. • Coordinate with facility owners or administrators of sensitive land uses such as police and fire stations, hospitals, and schools. Provide advance notification to the facility owner or operator of the timing, location, and duration of construction activities.		
3.13-2: Construction of the proposed program could potentially cause traffic safety hazards for vehicles, bicyclists, and pedestrians on public roadways, and could increase traffic hazards due to possible road wear.	None required	Less than significant	Not applicable
3.13-3: The proposed program could result in inadequate emergency access during construction.	None required.	Less than significant	Not applicable
3.13-4: Construction of the proposed program could contribute to cumulative impacts to traffic and transportation (traffic congestion, traffic safety, and emergency vehicle access).	Implementation of **TRAF-1**	Significant	Less than significant
Utilities and Service Systems			
3.14-1: Implementation of the proposed program could exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board or result in the construction of new treatment facilities or expansion of existing facilities if the wastewater treatment provider has inadequate capacity to serve the proposed program.	None required	Less than significant	Not applicable
3.14-2: The proposed program could require or result in the construction of new storm water drainage facilities or expansion	None required	Less than significant	Not applicable

TABLE ES-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impacts	Mitigation Measures	Significance before Mitigation	Significance if Mitigation is Implemented
of existing facilities, the construction of which could cause significant environmental effects.			
3.14-3: The proposed program could require new or expanded water supply resources or entitlements or require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	**UTIL-1:** Prior to approval of BMPs, implementing agencies shall evaluate the potential for impacts to downstream beneficial uses including surface water rights. Implementing agencies shall not approve BMPs that result in preventing access to previously appropriated surface water downstream.	Significant	Less than significant
3.14-4: The proposed program could be served by a landfill with insufficient permitted capacity to accommodate the project solid waste disposal needs or the project could not comply with federal, state, and local statutes and regulations related to solid waste.	**UTIL-2:** Implementing agencies shall encourage construction contractors to recycle construction materials and divert inert solids (asphalt, brick, concrete, dirt, fines, rock, sand, soil, and stone) from disposal in a landfill where feasible. Implementing agencies shall incentivize construction contractors with waste minimization goals in bid specifications where feasible.	Significant	Less than significant
3.14-5: Construction and operation of the proposed program would require additional energy use that could result in wasteful consumption, affect local and regional energy supplies, or conflict with applicable energy efficiency policies or standards.	None required	Less than significant	Not applicable

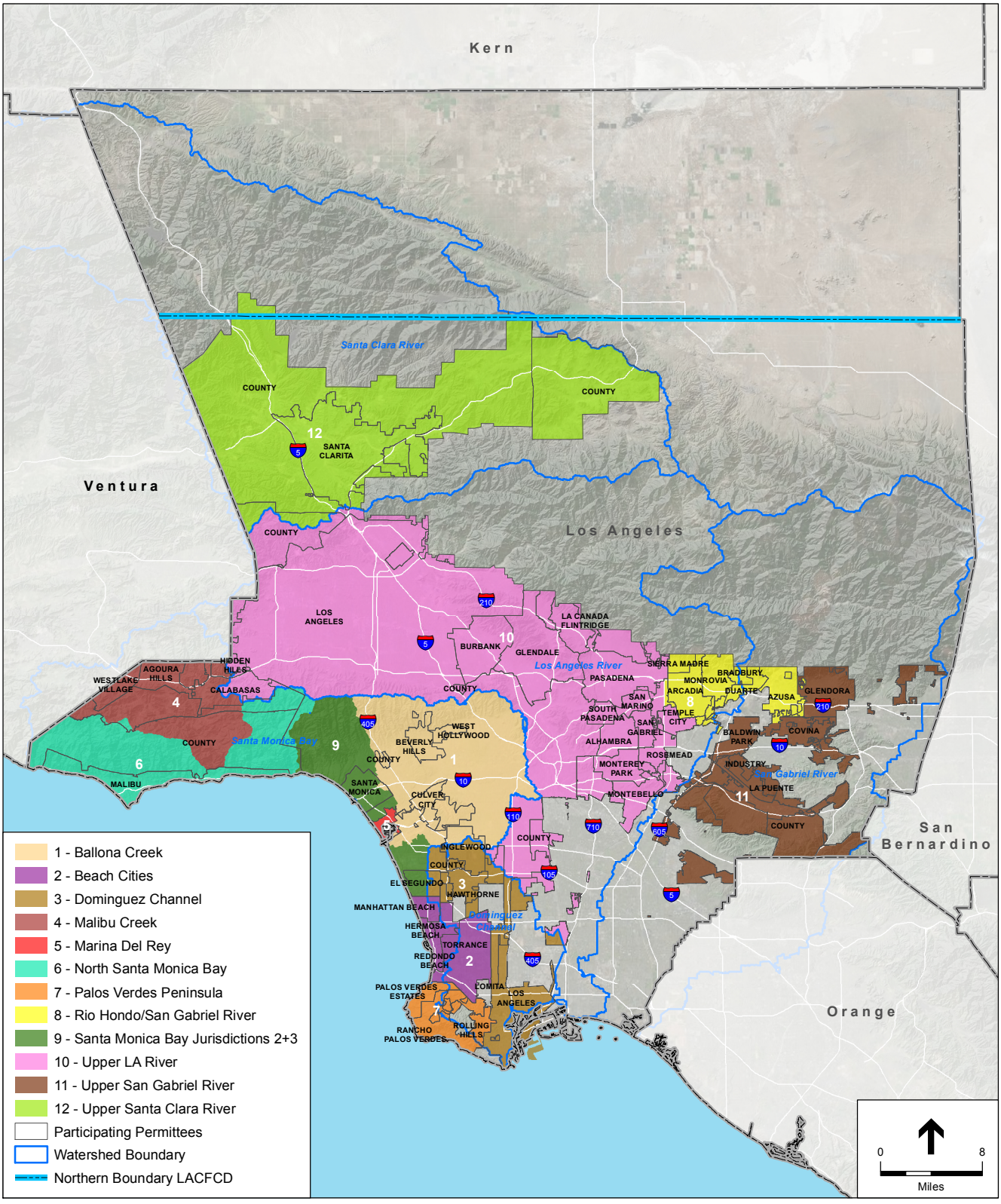
CHAPTER 1
Introduction

1.1 Introduction

The Los Angeles County Flood Control District (LACFCD) was created in 1915 when the State Legislature adopted the Los Angeles County Flood Control Act to provide flood risk management, water conservation, and recreation and aesthetic enhancement within its boundaries. The LACFCD owns and maintains a broad network of flood control facilities that convey stormwater to the local rivers and ultimately to the ocean. This vast network of regional flood control channels is interconnected with local flood control facilities owned and maintained by the both the LACFCD and the incorporated municipalities within Los Angeles County.

In December 2012, the Los Angeles Regional Water Quality Control Board (LARWQCB) issued a Municipal Separate Storm Sewer System (MS4) Permit (Order No. R4-2012-0175; National Pollutant Discharge Elimination System [NPDES] Permit No. CAS004001) covering discharges within coastal watersheds from the collective storm sewer systems in Los Angeles County (except from the City of Long Beach). The Permit regulates the discharge of stormwater runoff to waters of the United States from facilities owned and maintained by the LACFCD, the County of Los Angeles, and 84 incorporated cities within Los Angeles County (collectively referred to as Permittees). The purpose of the MS4 Permit is to achieve and maintain water quality objectives to protect beneficial uses of the receiving waters in the Los Angeles region. Each of the Permittees identified in the MS4 permit is responsible for meeting the conditions of the permit for MS4 discharges occurring within their jurisdiction.

The MS4 Permit gives Permittees the option of implementing an innovative approach to permit compliance through development of an Enhanced Watershed Management Program (EWMP). The EWMPs will identify potential and priority structural and non-structural Best Management Practices (BMPs) within the region's stormwater collection system to improve runoff water quality. The LACFCD, along with participating Permittees, has opted to exercise this option and has submitted to the LARWQCB 12 separate Notices of Intent (NOIs) for the development of EWMPs within 12 distinct watershed groups (refer to **Figure 1-1**). Implementation of the EMWPs would be the responsibility of each Permittee and would occur following approval of the EWMPs by the LARWQCB.



SOURCE: ESRI.

LA County PEIR EWMP . 140474

Figure 1-1

Watersheds and EWMP Groups within LACFD Boundaries

The LACFCD, as a regional agency, is a member of each of the 12 EWMP working groups, and as such provides a commonality within each EWMP group. However, LACFCD does not have a special status or authority designated by the MS4 Permit over any of the other Permittees. The LACFCD will be working with the applicable Permittees in all 12 EWMP watersheds as an equal partner to identify the types and locations of BMPs needed to achieve permit compliance within each watershed.

The timeline identified in the MS4 Permit requires that Permittees submit the EWMP to the LARWQCB by June 28, 2015, in order to be in compliance with the permit conditions. The LACFCD recognizes that implementation of the EWMPs may potentially result in changes to environmental conditions. As a result, the LACFCD has prepared this Program Environmental Impact Report (PEIR) in compliance with the California Environmental Quality Act (CEQA) to provide the public and the responsible and trustee agencies with information about the potential effects on the local and regional environment associated with implementation of the EWMPs. The LACFCD will submit the PEIR to its governing body, the Los Angeles County Board of Supervisors, for approval prior to submittal of the EWMPs. The EWMPs will be submitted by each EWMP group to the LARWQCB.

This PEIR describes and evaluates each of the EWMPs being prepared by the Permittees collectively. The discretionary action prompting the need for CEQA compliance is the submittal of the completed EWMPs to the LARWQCB. The EWMPs will identify management strategies including hundreds of structural Best Management Practices (BMPs) that may be designed and implemented by the Permittees to meet permit compliance objectives. A few of the BMPs are currently well defined but most are yet to be fully developed under the EWMPs. A set of priority BMPs will be detailed in each of the EWMPs; these are being developed in parallel with the PEIR. The PEIR describes the details that are available for each of the EWMPs currently under preparation by the EWMP working groups.

The PEIR analysis is not intended to focus on the site-specific construction and operation details of each management strategy and project included in the EWMP. Rather, this PEIR serves as a first-tier environmental document that focuses on the effects of implementing the EWMPs to reduce urban runoff pollution. The analysis assesses worst case situations where construction or operation of projects may significantly impact environmental resources. The analysis outlines mitigation strategies to be followed by the LACFCD and other implementing agencies that rely on this PEIR to avoid or minimize impacts wherever feasible. The determinations of significance after mitigation in this PEIR will apply to the LACFCD and other implementing agencies that rely on this PEIR and the mitigation measures proposed herein.

LACFCD is the CEQA Lead Agency for this PEIR. This PEIR can be used by the LACFCD or other Permittees to streamline environmental review of individual EWMP projects. As individual projects identified in the EWMPs are fully developed, the implementing agency (i.e., the Permittee responsible for implementing the project) will conduct CEQA analysis for individual projects as appropriate or may determine that no additional CEQA analysis is required or that a

project is exempt from CEQA. Each implementing agency would determine the significance after mitigation for potential impacts of their proposed projects.

The PEIR provides the LACFCD a foundation for any necessary future environmental review documents that focus on individual projects of the EWMPs for which the LACFCD is the designated Lead Agency. In addition, the PEIR can provide several advantages during the development and implementation of the EWMPs that may include:

- More exhaustive consideration of effects and alternatives than would be practical in an environmental impact report (EIR) for an individual BMP project.
- Consideration of cumulative impacts that might not be evident in a case-by-case or project-by-project analysis.
- Consideration by LACFCD as Lead Agency of broad policy alternatives and program-wide mitigation measures early in the process when there is greater flexibility to deal with basic problems or cumulative impacts.

The EWMPs are to include a discussion of the environmental documents, assessments, and permitting required for the implementation of the priority projects. The PEIR can provide a basis for this discussion. The use of the PEIR in the development and implementation of the EWMPs is further discussed in this chapter in the *Purpose of the Program Environmental Impact Report*.

1.2 Project Background

Stormwater/Water Quality

MS4 discharges consist of stormwater and non-stormwater generated from point sources throughout a watershed, collected and conveyed through the MS4, and ultimately discharged into surface waters. The MS4 system includes curbs and gutters, man-made channels, catch basins, and storm drains throughout the Los Angeles region. Discharges may adversely affect receiving surface water quality with pollutants such as bacteria, nutrients (nitrogen and phosphorus), metals, pesticides, and other man-made organic compounds. Aquatic toxicity, particularly during wet weather, is also a concern. Stormwater and non-stormwater discharges of debris and trash are also a pervasive water quality problem in the Los Angeles region. Pollutants in stormwater and non-stormwater may have damaging effects on both human health and aquatic ecosystems when persistent at certain concentrations above water quality criteria/thresholds.

Through water quality assessments conducted by the LARWQCB, the LARWQCB and U.S. Environmental Protection Agency (USEPA) have established 33 Total Maximum Daily Loads (TMDLs) that identify Los Angeles County MS4 discharges as pollutant sources causing or contributing to water quality impairments. The TMDL development process is explained in more detail in Chapter 2.0, *Project Description*. The MS4 Permit (described briefly later in this chapter) is designed to reduce pollutant loads into local surface waters. The implementation of the 12 EWMPs and their watershed-specific compliance strategies (which are explained in more detail in Chapter 2.0) would address the need for reduction in urban runoff pollution through

treatment and infiltration, as well as increasing stormwater retention throughout the Los Angeles region.

MS4 NPDES Permit

On November 8, 2012, the LARWQCB adopted the fourth NPDES MS4 Permit (Order No. R4-2012-0175) for discharges from the MS4s located within the coastal watersheds of Los Angeles County (excepting the City of Long Beach), which became effective on December 28, 2012. The MS4 Permit identifies conditions, requirements, and programs that municipalities must comply with to protect regional water resources from adverse impacts associated with pollutants in stormwater and urban runoff. The MS4 Permit contains effluent limitations, receiving water limitations (RWLs), minimum control measures, and TMDL provisions and outlines the process for developing watershed management programs, including EWMPs.

Watershed Management Programs

The MS4 Permit Section VI.C (page 47) includes provisions that allow Permittees to voluntarily choose to implement a Watershed Management Program (WMP). The purpose of this program is to "allow Permittees the flexibility to develop Watershed Management Programs to implement the requirements of [the] Order on a watershed scale through customized strategies, control measures, and BMPs." The permit states that "participation in a Watershed Management Program is voluntary and allows a Permittee to address the highest watershed priorities."

Several areas of the County covered in the permit chose to comply with the MS4 Permit through the preparation of WMPs only. In these areas, the structural BMPs needed to achieve local water quality objectives were primarily distributed BMPs that were found to be categorically exempt from CEQA. Actions needed to achieve MS4 Permit compliance in areas that have chosen to implement WMPs only are not evaluated in this PEIR.

Enhanced Watershed Management Programs

The Permit Section VI.C.1.g (page 48) allows for watersheds to collaborate in preparing an EWMP to achieve Permit compliance with RWLs. The intent of the EWMP is to comprehensively evaluate opportunities for collaboration on multi-benefit regional projects that retain MS4 discharges and also address flood control and/or water supply within the participating Permittees' collective jurisdictional boundaries. Twelve EWMP groups have formed to implement a collaborative approach to meeting the requirements of the 2012 MS4 Permit.

As required by the provisions of the MS4 Permit, each of the 12 EWMPs includes several components aimed at identifying priorities for water quality improvement and the mechanisms that will achieve those improvements. In general, these components include:

1. ***Stakeholder outreach and collaboration***, so that development and implementation of the EWMP is a collaborative effort between Permittees, stakeholders, and the public.
2. ***Identification of water quality priorities***, which serve as the basis for implementation and monitoring activities within the EWMP.

3. ***Identification of candidate watershed control measures*** that Permittees and stakeholders can customize to address water quality priorities.
4. ***Implementation of a Reasonable Assurance Analysis,*** so that the Permittees, stakeholders, and regulatory authorities can identify which control measures are likely to be the most effective, and have confidence in the performance of the selected watershed control measures.

These components are discussed in further detail below.

Stakeholder Outreach and Collaboration

According to Part VI.C.1.f.v (page 48) of the MS4 Permit, each EWMP must provide appropriate opportunities for meaningful stakeholder input, including the development of a watershed management program Technical Advisory Committee (TAC) that will advise and participate in the development of the EWMP. The MS4 Permit requires that at a minimum, the TAC include at least one Permittee representative from each Watershed Management Area (WMA) for which an EWMP is being developed (e.g., city administrators, stormwater program managers), one public representative from a non-government organization with public membership (e.g., environmental and community groups), and staff from the Regional Board, USEPA Region IX, and collaborating agencies (e.g., California Department of Transportation, U.S. Army Corps of Engineers).

Broader stakeholder groups will also be engaged through a series of workshops specific to each EWMP. The precise number and format of workshops will likely vary by watershed, with the overarching goal of providing a common and consistent orientation for stakeholders to the EWMP process, and a clear structure for stakeholders to contribute to the EWMPs. The TAC and stakeholders are expected to help define appropriate water quality priorities and identify suitable watershed control measures; these project elements are discussed further in this chapter.

Water Quality Priorities

The identification of water quality priorities is required in Section VI.C.5.a (p. 58) of the MS4 Permit as part of EWMP development. The Permit describes a four-step process for prioritizing and sequencing water quality concerns within each EWMP watershed:

1. Water quality characterization based on available monitoring data, TMDLs, 303(d) lists, stormwater annual reports, etc.
2. Water body-pollutant classification
3. Source assessment for the water body-pollutant categories
4. Prioritization of the water body-pollutant categories

The prioritization of pollutants under Step 4 is conducted for each EWMP watershed according to the following guidelines, established in the MS4 Permit:

- TMDLs (**first category**):

  - Controlling pollutants for which there are water-quality-based effluent limitations and/or receiving water limitations with interim or final compliance deadlines within the permit term, or TMDL compliance deadlines that have already passed and limitations have not been achieved.
  - Controlling pollutants for which there are water-quality-based effluent limitations and/or receiving water limitations with interim or final compliance deadlines between September 6, 2012, and October 25, 2017.
- Other Receiving Water Considerations (**second category**):
  - The second highest priority shall be considered controlling pollutants for which data indicate impairment of exceedances of receiving water limitations and the findings from the source assessment implicates discharges from the MS4.

The EWMP prioritization process includes identifying the priority pollutants and the schedule for implementing BMPs to meet the following criteria:

- For pollutants in the same class as TMDLs, the EWMPs evaluate the ability to consider these pollutants within the same time frame as the TMDLs.
- For pollutants on 303(d) list or in same class as 303(d) listings, the EWMPs develop a schedule to address these pollutants as soon as possible with milestones.
- For pollutants with exceedances that are not in the same class as the 303(d) listing, the EWMPs propose monitoring under CIMP to confirm exceedances and, if those exceedances are confirmed, the Permittees shall then develop a schedule to address these pollutants as soon as possible with milestones.
- For pollutants without exceedances in the last five years, the EWMPs will include them in monitoring plans but not prioritize them for BMPs.

The outcome of this process is the identification of water quality priorities in each EWMP and the proposed schedule for which BMPs are to be implemented to address these pollutants. Pollutants under a TMDL have higher priority and will be addressed under the timelines defined in the TMDLs. This further highlights that the EWMP is a continuation of water quality improvement efforts by the Permittees under existing TMDLs through adopted TMDL Implementation Plans. BMP types that are assessed in this PEIR therefore include BMPs that are under various stages of implementation and plan to meet TMDL waste load allocations.

Identification of Candidate Watershed Control Measures

The EWMPs describe a broad range of structural and non-structural control measures aimed at achieving compliance with the provisions of the MS4 Permit. These control measures are more commonly referred to as BMPs. BMPs vary in function and type, with each BMP providing unique design characteristics and benefits of implementation. Further description of both non-structural and structural BMP types, examples and anticipated distribution of the BMPs are presented in Chapter 2.0, *Project Description*, as these are the basis for the proposed program.

Reasonable Assurance Analysis

The Reasonable Assurance Analysis (RAA) is a critical component of the EWMPs and is used to demonstrate "that the activities and control measures will achieve applicable water-quality-based effluent limitations and/or RWLs with compliance deadlines during the Permit term" (Los Angeles MS4 Permit, Part VI.C.5.b.iv.(5), page 63). While the MS4 Permit prescribes the RAA as a quantitative demonstration that control measures (such as BMPs) will be effective, the RAA also provides an opportunity to use a modeling process to identify and prioritize potential control measures. The RAA for each EWMP uses a model to simulate a critical storm (design storm) and demonstrate that the selected BMPs for each watershed will achieve compliance with the TMDLs and water-quality-based effluent limitations.

The RAA is being performed as part of the preparation of the EWMPs, and in parallel with the preparation of this PEIR. The RAA demonstrates that the primary goal of the EWMP is to meet the water quality goals. The modeling being performed as part of the RAA will determine if the number and distribution of the BMP types and specific projects identified in the EWMP Work Plans will meet the water quality goals. This PEIR will assess the types of BMPs that may be implemented to meet these goals. Chapter 2.0, *Project Description*, provides examples of these types and maps showing the approximate location and potential distribution of these BMP types to meet these goals. These BMP examples are subject to change through the EWMP planning process that is developing on a parallel track to this PEIR. The EWMPs are also planning documents that will be revised periodically to reflect new data, further modeling, emerging technologies, and results of BMP monitoring and assessments.

1.3 CEQA Environmental Review Process

CEQA Process Overview

The basic purposes of CEQA are to: (1) inform the public and government decision makers regarding potential significant environmental effects of proposed activities, (2) identify ways in which potential environmental damage can be avoided or significantly reduced, (3) prevent significant, avoidable environmental damage by requiring changes in projects through the use of alternatives or mitigation measures, and (4) disclose to the public the reasons why a government agency approved the project if significant environmental effects are involved.

CEQA states that an EIR should use a multidisciplinary approach applying social and natural sciences to make a qualitative and quantitative analysis of all the foreseeable environmental impacts that a proposed project would exert on the surrounding area. As stated in Section 15151 of the CEQA Guidelines:

> "An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which intelligently takes an account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonable feasible."

This PEIR for the proposed program was prepared to comply with CEQA regulations, and is to be used by local agencies and the public in their review of the potential environmental impacts of the EWMP's implementation, proposed alternatives, and mitigation measures that would minimize, avoid, or eliminate the potential environmental effects. The LACFCD will consider the information presented in this PEIR, along with other factors, in the development and implementation of the EWMPs. The EWMPs are to include a discussion of the environmental documents, assessments and permitting required for the implementation of the priority projects. The PEIR can provide a basis for this discussion.

Significance criteria have been developed for each environmental resource analyzed in this Draft PEIR. The significance criteria are defined at the beginning of each impact analysis section. Impacts are categorized as follows:

- **Significant and Unavoidable:** Mitigation might be recommended but impacts are still significant.
- **Less than Significant with Mitigation:** Potentially significant impact but mitigated to a less-than-significant level.
- **Less than Significant:** Mitigation is not required under CEQA but may be recommended.
- **No Impact.**

Purpose of the Program Environmental Impact Report

The LACFCD determined that implementation of the 12 EWMPs could have a significant effect on the environment and therefore required preparation of a PEIR. The LACFCD prepared this Draft PEIR to provide the public and the responsible and trustee agencies with information about the potentially significant environmental effects of the proposed program, to identify possible ways to minimize potentially significant effects, and to describe and evaluate feasible alternatives to the proposed program.

This document has been prepared as a PEIR. According to the CEQA Guidelines, Section 15168(a), a PEIR is one type of environmental review document that may be used to evaluate a plan or program that has multiple components (projects and actions) or to address a series of actions that are related in any of the following ways:

- Geographically.
- As logical parts in the chain of contemplated actions.
- In connection with the issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program.
- As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental affects that can be mitigated in similar ways.

The EWMPs would include multiple projects and actions that cover a broad geographic scale. This PEIR provides a foundation for any necessary future environmental review documents that focus on individual projects of the EWMPs. A PEIR can provide the following additional advantages (CEQA Guidelines, Section 15168[b]):

- Provide for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action.
- Ensure consideration of cumulative impacts that might not be evident in a case-by-case or project-by-project analysis.
- Avoid duplicative consideration of basic policy issues.
- Allow Lead Agency to consider broad policy alternatives and program-wide mitigation measures early in the process when the agency has greater flexibility to deal with basic problems or cumulative impacts.
- Facilitate a reduction in paperwork.

A PEIR may be prepared on a plan before the details of each and every project within the long-term plan have been developed, as is the case for the EWMPs. Therefore, this PEIR addresses the environmental effects of the program as a whole. The analyses focus on the environmental effects of implementing the EWMPs as a program to improve surface water quality and increase water conservation. For the proposed program, many management strategies are only in the concept development or planning phase. The PEIR analysis is not intended to focus on the site-specific construction and operation details of each management strategy and project included in the EWMPs. Rather, this PEIR serves as a first-tier environmental document that focuses on the effects of implementing the EWMPs overall as a plan to reduce urban runoff pollution.

This PEIR evaluates the major environmental effects of implementing proposed EWMP projects from a broad perspective; this evaluation is a *program-level* analysis. While the Permittees are developing the design, construction, and operation details of the projects that would be included in the EWMPs, these project details are not the focus of this PEIR. Instead, the PEIR frames the nature and magnitude of the expected environmental impacts associated with these proposed EWMP projects and identifies program mitigation measures to reduce the impacts of the projects as proposed. As discussed further in this report, more detailed *project-level* analyses of individual EWMP projects may be conducted separately by each of the Permittees as required by CEQA. The EWMPs are to include a discussion of the environmental documents, assessments, and permitting required for the implementation of the priority projects. The PEIR can provide a basis for this discussion. This PEIR can be used by the LACFCD or other local implementing agencies to streamline environmental review of individual EWMP projects. The implementing agency may determine that a more detailed, *project-level* analysis is required, or may determine some projects to be exempt from CEQA. For non-exempt projects, project-level CEQA review will be conducted separately by the appropriate implementing agency. The separate environmental review of individual projects will evaluate site-specific impacts and incorporate feasible mitigation measures and alternatives (CEQA Guidelines, Section 15168[c]).

Impact Assessment Methodology

This PEIR provides a "program level" assessment, meaning that the type of BMPs that are envisioned for implementation are described and evaluated in concept, with examples of implemented projects provided to illustrate typical features. Each EWMP includes a list of potential locations where these BMP types may be installed, along with available information on the anticipated scale, location, and construction methods required for installation. Maps identifying potential and priority BMP locations are provided in Chapter 2, *Project Description*, with the overall EWMP watershed characteristics and BMP implementation strategy. The PEIR focuses its assessment on construction and operation of these potential and priority BMPs to be installed throughout the watersheds—but primarily within urbanized areas where the pollutant loading is greatest and where these BMPs can be most cost-effective in meeting water quality goals. The analysis assesses worst case situations where construction or operation of projects may significantly impact environmental resources. The analysis outlines mitigation strategies to be followed by Implementing Agencies to avoid or minimize impacts wherever feasible. Exact locations and BMP designs are not defined. Rather, the overall compliance strategy of BMP type, quantity, and geographic distribution is assessed on a cumulative, regional scale.

Scoping Period

A Notice of Preparation (NOP) was published by the LACFCD on August 29, 2014 (**Appendix A**). The NOP was circulated to federal, state, and local agencies, as well as other interested parties, for a period of 30 days. The distribution list is also located in Appendix A. The NOP was made available in print and electronic form, and the LACFCD accepted comments on the NOP for a 30-day period, closing on September 29, 2014. In addition, an email notification regarding the availability of the NOP was sent to over 700 interested EWMP stakeholders. The NOP discussed the purpose of the EWMPs and their management strategies, identified the EWMP Study Areas, and provided a brief and preliminary list of environmental issue areas that could be impacted. The initial 30-day comment period was extended an additional 30 days to October 29, 2014, to provide greater opportunity for public comment on the NOP. The notification for the extension of the comments period was sent by email to the over 700 interested EWMP stakeholders. The notice of the extension was also provided through the LACFCD Twitter account. In addition, a recording of the Scoping Meeting presentation was posted on the LACFCD website. A link to the website (www.LACoH2Osheds.com) was provided in the email and Twitter feed announcements.

Table 1-1 provides a list of the commenters that sent comments on the NOP. The comment letters are located in Appendix A.

TABLE 1-1
NOP COMMENTERS

	Date	Name	Organization
1	10/16/2014	Enrique Huerta	At-Large Stakeholder (Downey, CA)
2	10/23/2014	Enrique Huerta	At-Large Stakeholder (Downey, CA)
3	10/28/2014	George Ball	Citizen
4	10/29/2014	Jane Williams	Los Angeles County Arboretum
5	10/27/2014	Kenneth Hill	Los Angeles County Arboretum Foundation, President
6	10/23/2014	Marsha Perez	Citizen, Los Angeles County Arboretum
7	09/29/2014	Rex Frankel	Ballona Ecosystem Education Project, Director
8	10/29/2014	Rex Frankel	Ballona Ecosystem Education Project, Director
9	10/29/2014	Tom Williams	Sierra Club, Water Committee
10	10/08/2014	Elizabeth Byrne Debreu	Los Angeles Arboretum Foundation
11	09/29/2014	Dianna Watson	Department of Transportation
12	09/24/2014	Deirdre West	Metropolitan Water District
13	09/25/2014	Katy Sanchez	NAHC
14	09/29/2014	Douglas Fay	Citizen
15	09/29/2014	Donna Murray	Citizen
16	09/29/2014	Joyce Dillard	Citizen
17	10/03/2014	Patricia McPherson	Grassroots Coalition
18	10/14/2014	Jane Florentinus	Citizen
19	10/29/2014	Dale Carter	Arboretum volunteer and docent
20	08/29/2014	Scott Morgan	State Clearinghouse

Public Scoping Meetings

Pursuant to CEQA Guidelines Section 15083, the LACFCD held three public Scoping Meetings on September 9, 10, and 15 of 2014 to receive comments on the NOP, as detailed below. The purpose of the meetings was to present the proposed EWMPs to the interested stakeholders and receive public input regarding the proposed scope of the PEIR analysis. Attendees were provided an opportunity to voice comments or concerns regarding potential effects of the program. A scoping report was prepared to summarize the public scoping process and the comments received in response to the NOP; the scoping report is included in **Appendix B** of this PEIR. Appendix B also includes the written comments received on the NOP.

Scoping Meeting 1 — Tuesday, September 9, 2014
6:00 P.M.
Chace Park Community Room
13650 Mindanao Way
Marina del Rey, CA 90292

Scoping Meeting 2	Wednesday, September 10, 2014 6:00 P.M. County of Los Angeles Department of Public Works 900 South Fremont Avenue First Floor Conference Room C Alhambra, CA 91803
Scoping Meeting 3	Monday, September 15, 2014 6:30 P.M. K Dalton Room Monrovia Community Center 119 W Palm Ave Monrovia, CA 91016

Draft Program EIR Public Review

In accordance with Section 15105 of the CEQA Guidelines, the Draft PEIR is available for public review and comment for a 45-day review period. The Draft PEIR has been circulated to federal, state, and local agencies and interested parties who may wish to review and issue comments on its contents. All written comments should be sent to:

Gregg BeGell, P.E.
County of Los Angeles Department of Public Works
Project Management Division II
900 South Fremont Avenue, 5th Floor
Alhambra, CA 91803

All written comments received on the Draft PEIR will be commented on and included in the Final PEIR. Comments on the Draft PEIR must be received in writing by the end of the public review period. Copies of the Draft PEIR and related key documents, as well as documents incorporated by reference, are available for review at the following public locations:

Lead Agency	County of Los Angeles Department of Public Works Project Management Division II 900 South Fremont Avenue, 5th Floor Alhambra, CA 91803
Ballona Creek	Culver City Julian Dixon Library 4975 Overland Ave. Culver City, CA 90230 View Park Library 3845 W. 54th Street Los Angeles, CA 90043

Beach Cities WMG	Hermosa Beach Library 550 Pier Ave. Hermosa Beach, CA 90254 Manhattan Beach Library 1320 Highland Ave. Manhattan Beach, CA 90266
Dominguez Channel WMG	Hawthorne Library 12700 Grevillea Ave. Hawthorne, CA 90250 Carson Library 151 E. Carson St. Carson, CA 90745
Malibu Creek	Agoura Hills Library 29901 Ladyface Court Agoura Hills, CA 91301
Marina del Rey	Lloyd Taber Marina del Rey Library 4533 Admiralty Way Marina del Rey, CA 90292
North Santa Monica Bay Coastal Watersheds	Malibu Library 23519 W. Civic Center Way Malibu, CA 90265
Palos Verdes Peninsula	Lomita Library 24200 Narbonne Ave. Lomita, CA 90717
Rio Hondo/San Gabriel WQG	Duarte Library 1301 Buena Vista St. Duarte, CA 91010 Live Oak Library 4153-55 E. Live Oak Ave. Arcadia, CA 91006
Santa Monica Bay	Wiseburn Library 5335 W. 135th St. Hawthorne, CA 90250

Upper Los Angeles River	San Gabriel Library 500 S. Del Mar Ave. San Gabriel, CA 91776 La Cañada Flintridge Library 4545 N. Oakwood Ave. La Cañada Flintridge, CA 91011
Upper San Gabriel River	Baldwin Park Library 4181 Baldwin Park Blvd. Baldwin Park, CA 91706 La Puente Library 15920 E. Central Ave. La Puente, CA 91744
Upper Santa Clara River	Stevenson Ranch Express Library Dr. Richard H. Rioux Memorial Park 26233 W. Faulkner Dr. Stevenson Ranch, CA 91381

The Draft PEIR can also be accessed through the internet at: www.LACoH2Osheds.com.

Public Hearings

Public comments on the Draft PEIR will be accepted from January 16, 2015 to March 2, 2015. Public hearings on the Draft PEIR to accept written or oral comments are scheduled as follows:

1st Meeting	Thursday, January 29: 6:00 P.M. – 8:00 P.M. Florence-Firestone Service Center – Contact: Tony Brookins, Director 7807 S. Compton Ave., Los Angeles, CA 90001 Phone: (323) 586-6502
2nd Meeting	Tuesday, February 3: – 6:00 P.M. – 8:00 P.M. LA County Fire Camp #2 Classroom (Hahamongna Watershed Park) – Contact: Celia Hernandez 4810 Oak Grove Dr, La Cañada Flintridge, CA 91011 (818) 790-6434
3rd Meeting	Thursday, February 5 – 6:00 P.M. – 8:00 P.M. San Pedro Service Center – Contact: Lilia Andres, Regional Manager 769 W. Third St., San Pedro, CA 90731 Phone: (310) 519-6091
4th Meeting	Tuesday, February 10: 6:00 P.M. – 8:00 P.M. Topanga Library – Contact: Oleg Kagan, Library Manager 122 N. Topanga Canyon Blvd., Topanga, CA 90290 Phone: (310) 455-3480
5th Meeting	Wednesday, February 11: 6:00 P.M. – 8:00 P.M. Hacienda Heights Community Center 1234 Valencia Avenue, Hacienda Heights CA 91745

6th Meeting	Tuesday, February 17: 6:00 P.M. – 8:00 P.M. East Los Angeles Library – Contact: Alice Medina, Librarian 4837 East 3rd Street, Los Angeles, CA 90022 Phone: (323) 264-0155

Final PEIR Publication and Certification

Written comments received on the Draft PEIR will be addressed in a Response to Comments document which, together with the Draft PEIR, will constitute the Final PEIR. As required by CEQA, responses to comments submitted by responsible public agencies will be distributed to those agencies for review prior to consideration of the Final EIR by the Board of Supervisors. The Board of Supervisors will decide whether to certify the Final PEIR at a public meeting. Upon certification of the PEIR, LACFCD may proceed to take action on program approval and submittal of the EWMPs to the LARWQCB.

CEQA requires the adoption of findings prior to approval of a project where a certified EIR identifies significant environmental effects (CEQA Guidelines, Sections 15091 and 15092). If the Board of Supervisors approves the program even though significant impacts identified by the PEIR cannot be mitigated, it will adopt a Statement of Overriding Considerations that states in writing the reasons for its actions (CEQA Guidelines Section 15093[b]). This Statement of Overriding Considerations must be included in the record of the project approval and mentioned in the Notice of Determination (CEQA Guidelines Section 15093(c)).

Mitigation Monitoring and Reporting Program

CEQA Section 21081.6(a) requires lead agencies to "adopt a reporting and mitigation monitoring program for the changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment." This Draft PEIR identifies and presents mitigation measures that would form the basis of such a monitoring program. Any mitigation measures adopted by the LACFCD will be included in a Mitigation Monitoring and Reporting Program (MMRP) to verify compliance. The MMRP will be included within the Final PEIR.

1.4 Documents Incorporated by Reference

The following documents are incorporated by reference in this PEIR:

Ballona Creek Watershed Management Group, *Enhanced Watershed Management Program (EWMP) Final Work Plan*, prepared by City of Beverly Hills, City of Culver City, City of Los Angeles, City of Inglewood, City of Santa Monica, City of West Hollywood, County of Los Angeles, and Los Angeles County Flood Control District, June 2014.

Ballona Creek Watershed Management Group, *Revised Notice of Intent: Enhanced Watershed Management Program and Coordinated Integrated Monitoring Program*, December 2013.

Beach Cities Watershed Management Group, *Enhanced Watershed Management Program (EWMP) Work Plan*, prepared by City of Hermosa Beach, City of Manhattan Beach, City

of Redondo Beach, City of Torrance, and Los Angeles County Flood Control District, June 2014.

Beach Cities Watershed Management Group, *Notice of Intent: Enhanced Watershed Management Program and Coordinated Integrated Monitoring Program*, December 2013.

California Environmental Protection Agency State Water Resources Control Board, official website, http://www.waterboards.ca.gov/losangeles/, accessed July 29, 2014.

California Regional Water Quality Control Board Los Angeles Region, *Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges Within the Coastal Watersheds of Los Angeles County, Order NO. R4-2012-0175, NPDES Permit NO. CAS004001*, December 2012.

Dominguez Channel Watershed Management Area Group, *Enhanced Watershed Management Program Work Plan*, prepared by City of Los Angeles, County of Los Angeles, City of Hawthorne, City of Inglewood, City of El Segundo, City of Lomita, and Los Angeles County Flood Control District, June 2014.

Dominguez Channel Watershed Management Area Group, *Notice of Intent: Enhanced Watershed Management Program and Coordinated Integrated Monitoring Program*, June 2013.

Malibu Creek Watershed Group, *Revised Notice of Intent: Enhanced Watershed Management Program and Coordinated Integrated Monitoring Program*, June 2013.

Malibu Creek Watershed Management Group, *Enhanced Watershed Management Program Work Plan*, prepared for City of Calabasas, City of Agoura Hills, City of Westlake Village, City of Hidden Hills, County of Los Angeles and Los Angeles County Flood Control District, June 2014.

Marina del Rey Enhanced Watershed Management Agencies, *Marina del Rey Enhanced Watershed Management Program Work Plan*, prepared for County of Los Angeles, Los Angeles County Flood Control District, City of Los Angeles, and City of Culver City, June 2014.

Marina del Rey Watershed Group, *Revised Notice of Intent: Enhanced Watershed Management Program and Coordinated Integrated Monitoring Program*, March 2014.

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1.5 PEIR Organization

This Draft PEIR is organized into the following chapters and appendices:

***Executive Summary*.** This chapter summarizes the contents of the Draft PEIR.

Chapter 1.0, *Introduction*. This chapter discusses the CEQA process and the background and purpose of the PEIR for the proposed program.

Chapter 2.0, *Project Description*. This chapter provides an overview of the proposed program and each EWMP group, describes the need for and objectives of the proposed program, and provides detail on the characteristics of the proposed program.

Chapter 3.0, *Environmental Impact Analysis*. This chapter describes the environmental setting and identifies impacts of the proposed program for each of the following environmental resource areas: Aesthetics; Air Quality; Biological Resources; Cultural Resources; Geology and Soils/Mineral Resources; Greenhouse Gas Emissions; Hazards and Hazardous Waste; Hydrology

and Water Quality; Land Use and Planning/Agriculture; Noise; Population and Housing; Public Services/Recreation; Transportation and Circulation; and Utilities, Service Systems, and Energy. Measures to mitigate the impacts of the proposed program, if necessary, are presented for each resource area.

Chapter 4.0, *Cumulative Impacts*. This chapter evaluates the potential for the proposed program to result in secondary environmental cumulative effects.

Chapter 5.0, *Growth-Inducement Potential*. This chapter evaluates the potential for the proposed program to induce population growth and result in secondary environmental effects due to such growth.

Chapter 6.0, *Alternatives Analysis*. This chapter presents an overview of the alternatives development process and describes the alternatives to the proposed program that were considered.

Chapter 7.0, *Organizations and Persons Contacted*. This chapter identifies authors involved in preparing this Draft PEIR, including persons and organizations consulted.

Chapter 8.0, *Report Preparers*. This chapter identifies authors involved in preparing this Draft PEIR, including persons and organizations consulted.

Chapter 9.0, *References*. This chapter includes all citations for sources used in the preceding chapters.

CHAPTER 2
Project Description

2.1 Introduction

The preparation of the 12 separate Enhanced Watershed Management Programs (EWMPs) is a collective effort among the Los Angeles County Flood Control District (LACFCD) and the applicable Permittees in each Watershed Management Group (WMG). The 12 EWMPs are being prepared on a parallel schedule to the Program Environmental Impact Report (PEIR). The 12 EWMPs will vary for each watershed group, but will generally provide the opportunity for Permittees to customize their stormwater programs to achieve compliance with applicable receiving water limitations and/or water-quality-based effluent limits in accordance with the Municipal Separate Storm Sewer System (MS4) Permit through implementation of stormwater Best Management Practices (BMPs) or watershed control measures. Each Permittee is responsible for discharges in its jurisdiction and meeting the water quality goals for these discharges.

The EWMPs provide for a collaborative effort by Permittees on a watershed basis. The EWMP process allows for greater collaboration and accountability. The EWMPs, once complete, will include specific projects and identify Permittees that may benefit from the projects. Projects may be implemented individually or with partners. Each Permittee is responsible for the content of the EWMP projects that meet the water quality goals for the MS4 discharges within their jurisdiction.

This Project Description describes types of BMPs presented in the 12 Notices of Intent (NOIs), EWMP Work Plans, and input from the EWMP WMG. The BMPs listed in each EWMP are in various phases of planning or implementation. Examples of existing BMPs are used to illustrate the function, type of construction, and general locations of the BMP types for the purpose of the environmental assessment of the BMP types identified in the EWMPs.

BMPs vary in function and type, with each BMP providing unique design characteristics and benefits from implementation. The overarching goal of BMPs in the EWMPs is to reduce the impact of stormwater and non-stormwater on receiving water quality and address the water quality priorities as defined by the MS4 Permit. The development of each EWMP will involve the evaluation and selection of multiple BMP types, including nonstructural (institutional) and distributed, centralized, and regional structural watershed control measures, that will be implemented to meet compliance goals and strategies under the 2012 MS4 Permit. The LACFCD has limited jurisdictional authority for ordinance and code enactment or enforcement and therefore is limited in nonstructural BMPs to education and outreach measures.

The structural watershed control measures that will be implemented by the LACFCD will be multi-benefit stormwater projects that emphasize flood risk mitigation and water conservation and supply.

The LACFCD has a vested interest in increasing opportunities for stormwater capture and groundwater recharge as a means of assisting local water supply augmentation. The LACFCD will be working with the applicable Permittees and other stakeholders in all 12 EWMP watersheds to develop such projects. The EWMPs will be implemented by the Permittees that have jurisdiction within each EWMP area. The implementing agencies will be responsible for the contents of the EWMPs affecting their jurisdictions and for implementing the projects developed by the EWMPs.

2.2 Goals and Objectives

The primary goals and objectives of the EWMPs are:

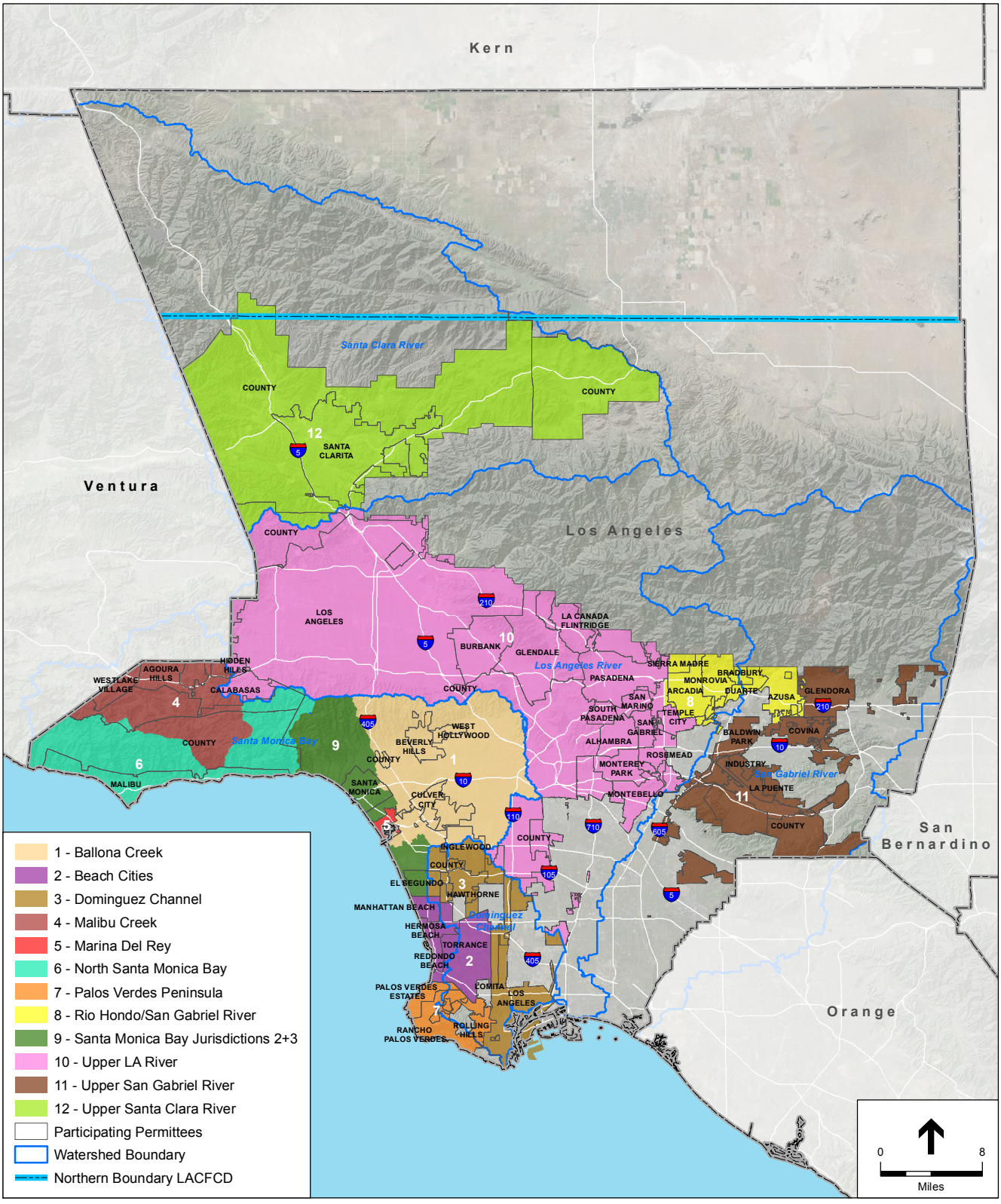
- To collaborate among agencies (Permittee jurisdictions) across the watershed to promote more cost-effective and multi-beneficial water quality improvement projects to comply with the MS4 Permit.
- To develop watershed-wide EWMPs that will, once implemented, remove or reduce pollutants from dry- and wet-weather urban runoff in a cost-effective manner.
- To reduce the impact of stormwater and non-stormwater on receiving water quality.

2.3 Watersheds, Participants, and Process

Following the adoption of the MS4 Permit by the Los Angeles Regional Water Quality Control Board (LARWQCB), some Permittees from each EWMP area formed WMGs to collaborate on the development of EWMPs. The proposed program includes several WMGs of Los Angeles County, covering the following EWMP areas: Ballona Creek, Beach Cities, Dominguez Channel, Malibu Creek, Marina del Rey, North Santa Monica Bay Coastal Watersheds, Palos Verdes Peninsula, Rio Hondo/San Gabriel River, Santa Monica Bay, Upper Los Angeles River, Upper San Gabriel River, and Upper Santa Clara River. The geographic scope covered by each of these 12 EWMPs is detailed in **Table 2-1** and shown in **Figure 2-1.**

TABLE 2-1 - EWMP PARTICIPANTS AND WATERSHEDS

Watershed Management Group	Affected Watersheds	Cities/Permittees	Lead/Coordinator
Ballona Creek	Ballona Creek Watershed	Beverly Hills, Culver City, Inglewood, Los Angeles, Santa Monica, West Hollywood, LA County, LACFCD	Los Angeles
Beach Cities	Santa Monica Bay Watershed Jurisdictional Group (SMB JG) 5 & 6, Dominguez Channel Watershed, and Machado Lake Watershed	Hermosa Beach, Manhattan Beach, Redondo Beach, Torrance, LACFCD	Redondo Beach
Dominguez Channel	Dominguez Channel Watershed, the Machado Lake Watershed, and the Los Angeles/Long Beach Harbors Watershed	El Segundo, Hawthorne, Inglewood, Los Angeles, Lomita, LA County, LACFCD	Los Angeles
Malibu Creek	Malibu Creek Watershed	Agoura Hills, Calabasas, Hidden Hills, Westlake Village, LA County, LACFCD	Calabasas
Marina del Rey	Marina del Rey Watershed	Culver City, Los Angeles, LACFCD, LA County	LA County
North Santa Monica Bay	SMB JG 1, SMB JG 4, and a portion of Malibu Creek within the City of Malibu's borders	LA County, LACFCD, Malibu	Malibu
Palos Verdes Peninsula	Most of the SMB JG7, the Los Angeles Harbor subwatershed, and the Machado Lake subwatershed	Palos Verdes Estates, Rancho Palos Verdes, Rolling Hills Estates, LA County, LACFCD	Rancho Palos Verdes
Rio Honda/San Gabriel River	Portions of the Los Angeles and San Gabriel River Watersheds	Arcadia, Azusa, Bradbury, Duarte, Monrovia, County, LACFCD, Sierra Madre	Sierra Madre
Santa Monica Bay	SMB JG2 and SMB JG3	Los Angeles, El Segundo, Santa Monica, LA County, LACFCD	Los Angeles
Upper LA River	Upper reaches of the Los Angeles River Watershed	Alhambra, Burbank, Calabasas, Glendale, Hidden Hills, La Canada Flintridge, Los Angeles, Montebello, Monterey Park, Pasadena, Rosemead, San Gabriel, San Marino, South Pasadena, Temple City, LA County, LAFCD	Los Angeles
Upper San Gabriel River	Portions of the San Gabriel River Watershed	Baldwin Park, Covina, Glendora, Industry, La Puente, LACFCD, LA County	LA County
Upper Santa Clara River	Upper Santa Clara River Watershed	LA County, LACFCD, Santa Clarita	Santa Clarita



SOURCE: ESRI.

LA County PEIR EWMP . 140474

Figure 2-1

Watersheds and EWMP Groups within LACFCD Boundaries

2.4 EWMP BMP Types

A variety of BMP types are defined in the EWMP Work Plans and NOIs. The following section provides an overview of non-structural and structural BMP types that will be part of the EWMPs. This section also includes a summary of planned and ongoing projects listed in the EWMP Work Plans for each BMP type to provide information on the anticipated scale, construction methods, and general locations of these BMP types. Additional information and figures on the location and distribution of potential and priority BMPs based on available data at the time of publication of this PEIR, are presented in Section 2.5, *EWMP Watershed Characteristics and BMP Implementation Strategies*.

2.4.1 Non-Structural Control Measures/Institutional BMPs

These are policies, actions, and activities which are intended to minimize or eliminate pollutant sources. Most institutional BMPs are implemented to meet Minimum Control Measure (MCM) requirements in the MS4 permit; MCMs are considered a subset of institutional BMPs. These BMPs are not constructed, but may have costs associated with the procurement and installation of items such as signage or spill response kits. The MS4 Permit categorizes institutional BMPs into six program categories:

- ***Development Construction Programs***, which establish standards for stormwater management from construction sites of all sizes (e.g., with or without a stormwater pollution prevention plan [SWPPP]).
- ***Industrial/Commercial Facilities Programs***, which establish standards for pollutant reduction and control measures at industrial and commercial facilities.
- ***Illicit Connection and Illicit Discharges (IC/ID) Detection and Elimination Programs***, which describe procedures for identifying, eliminating, and reporting illicit connections and discharges to the stormwater system.
- ***Public Agency Activities Programs***, which describe a broad range of municipal practices such as street cleaning, landscape management, storm drain operation, and more.
- ***Planning and Land Development Programs***, which encourage the application of smart growth and low-impact development (LID) practices to development and redevelopment projects.
- ***Public Information and Participation Programs***, which educate and engage the public on a broad range of pollution- and stormwater-related issues.

Permittees can evaluate the MCMs, identify potential modifications that will address water quality priorities, and provide justification for modification or elimination of any MCM that is determined to be ineffective (with the exception of the Planning and Land Development Program, which may not be eliminated or modified). MCM customization may include replacement, reduced implementation, augmented implementation, focused implementation, or elimination.

Because the LACFCD has limited jurisdictional authority for ordinance and code enactment or enforcement, it is limited in application of MCMs to activities such as public information and participation programs.

2.4.2 Structural Control Measures/Structural BMPs – General BMP Types and Categories

Structural control measures are constructed BMPs that reduce the impact of stormwater and non-stormwater on receiving water quality. They are broken into three categories:

- ***Distributed Structural BMPs***, which treat runoff close to the source and typically implemented at a single- or few-parcel level (e.g., facilities typically serving a contributing area less than one acre).
- ***Centralized Structural BMPs***, which treat runoff from a contributing area of multiple parcels (e.g., facilities typically serving a contributing area on the order of tens or hundreds of acres or larger).
- ***Regional Structural BMPs***, which are meant to retain the 85th percentile storm over 24 hours from a contributing area. Generally, the 85th percentile storm is approximately 0.75 inches over 24 hours

Whether distributed, centralized, or regional, the major structural BMP functions are infiltration, treatment, and storage that may be used individually or combination:

- ***Infiltration,*** where runoff is directed to percolate into the underlying soils. Infiltration generally reduces the volume of runoff and increases groundwater recharge.
- ***Treatment***, where pollutants are removed through various unit processes, including filtration, settling, sedimentation, sorption, straining, and biological or chemical transformations.
- ***Storage***, where runoff is captured, stored (detained), and slowly released into downstream waters. Storage can reduce the peak flow rate from a site, but does not directly reduce runoff volume.

The types of structural BMPs to be implemented will vary between EWMPs, but most EMWPs will include a variety of distributed, centralized, and regional BMPs.

Table 2-2 describes the sub-types of distributed, centralized, and regional structural BMPs that form the basis of the water quality improvements proposed in the EWMPs. The following sub-sections provide further description and examples of the BMP types and subcategories under the categories of distributed, centralized, and regional structural BMPs.

TABLE 2-2
TYPICAL STRUCTURAL BEST MANAGEMENT PRACTICES

Main BMP Category	BMP Types to be Assessed	Sub-types of BMPs
Distributed Structural BMPs	Site-scale detention	Dry detention basin Wet detention pond Detention chambers
	Green infrastructure/Low-impact development (LID)	Bioretention Biofiltration Permeable pavement Green streets Infiltration BMPs Bioswales Planter boxes Rainfall harvest
	Flow-through treatment BMPs	Debris booms/nets End-of-pipe nets Floating trash booms Hydrodynamic separators Water clarifiers Stormwater quality vaults
	Source control treatment BMPs	
Centralized Structural BMPs (do not retain the 85th percentile storm)	Infiltration BMPs	Surface infiltration BMPs (infiltration basins, infiltration trenches, infiltration galleries, bioretention, permeable pavement – implemented as single or multiple types), subsurface infiltration galleries Multi-directional infiltration BMPs (dry wells, hybrid bioretention and dry wells)
	Capture and use BMPs	Underground cisterns, storage and use as irrigation
	Bioinfiltration BMPs	Generally implemented as multiple types for regional BMPs: Bioretention with underdrain, bioinfiltration, high-flow biotreatment and raised underdrain, vegetated swales, filter strips
	Detention (promote settling out of larger particles)	Aboveground, belowground
	Treatment facilities (capture, storage and treatment-train)	
	Low-flow diversion (dry-weather flow and low-flow storm events)	
	Engineered/constructed wetlands	Aboveground, belowground
	Creek/river/floodplain/estuary restoration	
	Multi-benefit flood management project	
Regional Structural BMPs (retain the 85th percentile storm)	Infiltration	Surface infiltration BMPs: Infiltration basins, infiltration trenches, infiltration galleries, and bioretention-implemented as single or multiple types Multidirectional infiltration BMPs: Dry wells, hybrid bioretention, and dry wells
	Capture and use BMPs	Underground cisterns, storage, and use as irrigation

2.4.3 Distributed Structural BMPs – Overview and Example BMPs

The following discussion presents an overview of various types of distributed BMPs and illustrates these further through example projects. The example project lists are based on existing and planned projects that will be part of the EWMPs. Included with each overview of the types of these BMPs is a discussion of the anticipated construction activities to implement these projects.

Because of their nature (intended to treat runoff at the parcel-scale), distributed BMPs are most likely to be implemented in high-density urban, commercial, industrial, and transportation areas, where they will either replace or improve upon existing stormwater infrastructure. These types of BMPs are generally "retrofit" type projects that replace existing impervious surfaces with pervious surfaces such as bioinfiltration cells, bioswales, porous pavement, and filter strips that tie into existing stormwater management systems as part of the MS4. These projects may also augment the existing MS4 with additional inlet screens, filter media systems, sediment removal systems, and diversions to sanitary sewer lines. Types of distributed structural BMPs are discussed in the following pages; the definitions and photographs of these BMPs are from the "Structural Fact Sheets" as presented in some EWMP Work Plans (e.g., Ballona Creek).

Site-scale detention. Site-scale detention facilities are designed to detain runoff from an individual parcel and improve water quality through pollutant settling. Site-scale detention facilities can reduce peak flows and improve water quality by storing water in a basin before slowly draining the water through an orifice to the downstream waterway. Settling of sediment and sediment-bound pollutants is the primary pollutant removal mechanism. There are two primary types of site-scale detention: *dry detention basin*s, in which runoff fully drains during storm events, and *wet detention ponds*, which capture water in a temporary storage zone above a permanent pool. Both types are illustrated in the following photographs..

Dry Detention Basin

Wet Detention Pond

Anticipated Construction Activities: The construction of detention basins typically requires the permanent removal of aboveground infrastructure and/or surface materials such as asphalt and concrete for retrofit type projects and excavation and grading for projects on soil-covered sites. Ground disturbance for distributed detention is typically less than 1 to 2 acres in extent, but may extend in some limited applications up to 5 acres where space is available. Site soils must be excavated to create the desired storage volume for stormwater. The depth of excavation will vary with available space, existing grades, and desired storage volume. For these smaller-scale systems, excavation is likely to be several feet and up to 10 feet. Generally, excavation below

6 feet is limited by the size of these systems and available space to provide adequate slope grading for safety and stability. Berms may be used to increase storage to reduce cost of excavation. Berms for these types of projects are several feet. Higher berms may be possible in some limited locations where space is available. Increasing berm height increases the footprint of these facilities to accommodate side slopes for safety and stability factors. On parcels where there is adequate room, soils may be placed on-site to balance cut and fill; smaller parcels may necessitate the off-hauling of excavated soils. Construction of dry detention basins in areas with high groundwater may limit the depth of the basins to meet minimum groundwater separation distances. The construction of dry detention basins may include the installation of recreational elements (nets, benches, etc.) so that the basins can serve as playing fields when not inundated. Wet detention ponds may require engineering (separate outlet structures with low-flow orifices, circulation elements, etc.) to ensure that the permanent pool does not become stagnant and a magnet for mosquito production (must be emptied within 72 hours). Detention basin includes berms and outlet structures that control the volume stored and the flow and velocity of the discharge.

Green infrastructure/Low-impact development (LID). This BMP category describes a broad range of development elements that aim to manage and treat stormwater as a resource, and minimize the differences between pre- and post-development hydrology. BMP subtypes in this category include:

- ***Bioretention and Biofiltration.*** *Bioretention* areas are shallow, depressed, vegetated basins with permeable soil media and no underdrains. Runoff temporarily ponds on the surface of these basins before filtering through the soil. *Biofiltration* areas are bioretention areas with underdrains. Infiltration is these systems is considered incidental, although substantial infiltration can occur in some unlined systems. Both systems are illustrated below; these examples use planted filter media and an underdrain to remove pollutants from stormwater.

Residential Bioretention | Bioretention in an Alley | Parking Lot Biofiltration

Anticipated Construction Activities: Similar to distributed detention basins, distributed bioretention and biofiltration BMPs would typically require the permanent removal of aboveground infrastructure and/or surface materials such as asphalt and concrete for retrofit type projects and excavation and grading for projects on soil covered sites. Ground disturbance for LID distributed BMPs is typically less than 1 to 2 acres in extent, but may extend in some limited applications up to 5 acres where space is available and where linear projects extend to adjacent parcels. The extent of land disturbance depends

on the type of distributed BMP and may be more linear for bioswales and filter strips, compared to larger continuous areas for bioretention cells that store and then filter or infiltrate stormwater. In areas proposed for biofiltration without suitably permeable soils, native soils will have to be excavated, amended, and put back in place, or replaced entirely with biofiltration media (e.g., coarse gravels). The replacement of local soils would likely require that those soils then be hauled off-site. Systems with underdrains may require more extensive excavation and construction so that the underdrain can be connected to the MS4. The depth of excavation for these distributed systems will vary from several feet and up to 10 feet depending on the thickness and number of filter and storage layers. Generally, excavation is limited to 4 to 6 feet below existing grade for these systems.

- ***Permeable Pavement.*** Permeable pavement is a stable load-bearing surface that allows for stormwater infiltration. Beneath the permeable surface is a crushed-rock/ aggregate reservoir that provides structural support while allowing runoff to percolate to the underlying soils. Permeable pavement can be fully infiltrating or can have an underdrain like biofiltration practices. There are multiple types of permeable pavement; three are illustrated below. The mixes for *pervious concrete* and *porous asphalt* exclude fines from the aggregate to create permeable void space. Permeable interlocking *concrete pavers* allow infiltration of stormwater through joints between the blocks.

Pervious Concrete **Permeable Interlocking** **Porous Asphalt**

Anticipated Construction Activities: Similar to distributed bioretention and biofiltration BMPs, porous pavement BMPs would typically require the permanent removal of aboveground infrastructure and/or surface materials such as asphalt and concrete for retrofit type projects and excavation and grading for projects on soil covered sites. Porous pavement projects are generally retrofit type projects to increase infiltration and/or filtering of stormwater, but may include installation in new development and redevelopment, which may require clearing and grubbing activities prior to installation. Ground disturbance for these systems is typically less than 1 to 2 acres in extent, but may extend in some limited applications up to 5 acres where space is available. The depth of excavation for these distributed systems will vary from several feet and up to 6 feet depending on the thickness and number of structural support, filter, underground stormwater storage, and underdrain transmission layers. Systems with underdrains will require additional excavation. Generally, excavation is limited to 2 to 6 feet below existing grade for these systems. The installation of permeable pavement is frequently

associated with the reconstruction of transportation elements such as parking lots, sidewalks, non-motorized paths, and related features.

- ***Green streets.*** Green streets are systems of multiple BMPs arranged in a linear fashion within the street right-of-way (as opposed to a parcel-based implementation). Green streets are designed to reduce runoff and improve water quality of runoff from the roadway and adjacent parcels by replacing impervious surfaces with more porous ones, and directing stormwater to vegetated systems that can filter and infiltrate stormwater. Bioretention, biofiltration, and permeable pavement BMPs are commonly used in conjunction and can be hydraulically connected using subsurface stone reservoirs. The examples below show curb cuts that direct stormwater from the parking areas and roadways to a bioswale designed to collect, filter, and infiltrate stormwater.

Green Street

Green Street

Anticipated Construction Activities: The installation of green street BMPs is similar to the construction activities that are summarized for the porous pavement and the LID-type distributed BMPs provided above as these include elements of both these types. These BMPs would typically require the permanent removal of aboveground infrastructure and/or surface materials such as asphalt and concrete for retrofit type projects and excavation and grading for projects on soil covered sites. Ground disturbance for green streets is typically less than 1 to 2 acres in extent, but may extend in some limited applications up to 5 acres where space is available and where these more linear projects extend to adjacent parcels. In areas proposed for biofiltration without suitably permeable soils, native soils will either have to be excavated, amended, and put back in place, or replaced entirely with biofiltration media (e.g. coarse gravels). The replacement of local soils would likely require that those soils then be hauled off-site. Systems with underdrains may require more extensive excavation and construction so that the underdrain can be connected to the MS4. The depth of excavation for these distributed systems will vary from several feet up to 6 feet depending on the thickness and number of filter and storage layers. Generally, excavation is limited to 4 feet below existing grade for these systems.

- ***Infiltration BMPs.*** Infiltration BMPs capture and infiltrate runoff into unvegetated underlying soils. Runoff is typically stored in subsurface trenches or vaults filled with engineered soil media, gravel, or concrete chambers. There are multiple types of infiltration BMPs, including: *dry/wet wells*, which are gravel-surrounded vaults with perforated walls that receive runoff form a pipe and allow it to infiltrate into the ground,

and infiltration trenches, which are media-filled trenches that capture runoff in pore space prior to infiltration. These following pictures illustrate these types of BMPs.

Various Dry-Well Sizes(Source: www.peerlessconcrete.com)

Infiltration Trench

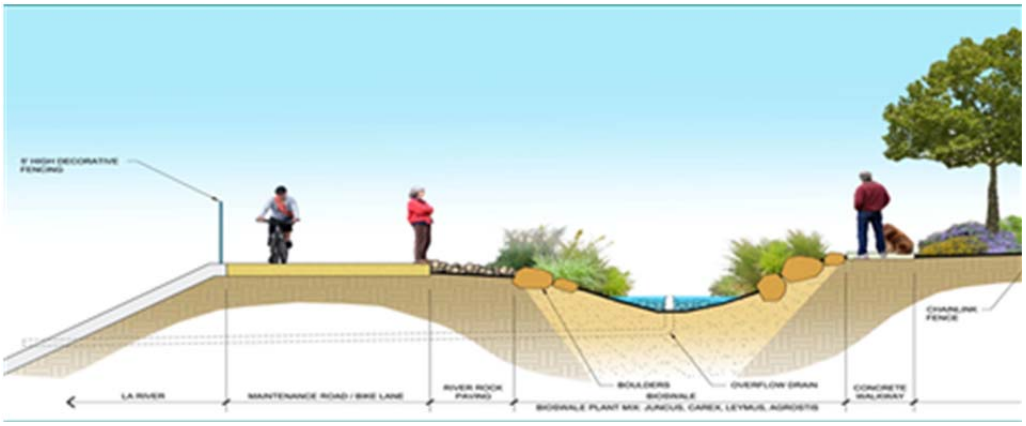
Infiltration Trench

Anticipated Construction Activities: The ground disturbance footprint necessary to install infiltration BMPs can vary depending on the project's size and location. As illustrated above, infiltration trenches tend to be linear features and as such typically have relatively small footprints (less than 1 acre) unless they are very long (e.g., associated with transportation upgrades – roads, rail corridors, etc.). Subsurface excavation is typically required to replace native soils with highly porous infiltration media, vaults or other subsurface storage structures that will retain runoff and allow it to infiltrate into the subsurface. Larger underground storage and infiltration structures will require greater depths and volume of excavation. These types of infiltration BMPs may disturb larger (2 to 3 acres) areas. Larger systems are designed for multi-parcels and are characterized as centralized BMPs rather than distributed BMPs that are for one to two parcels. Depth of excavation of infiltration BMPs will depend on the storage requirements and depth to groundwater. Minimum separation distances of 10 feet to groundwater are typical. Excavation for these distributed type infiltration projects is generally 2 to 4 feet for infiltration trenches and 4 to 8 feet for vault and dry well systems. Dry/wet wells require deeper excavation but are more localized and smaller in footprint.

- ***Bioswales.*** Bioswales are BMPs that convey storm flow through vegetated, shallow depressions to remove sediment-associated pollutants by settling and filtering mechanisms. Infiltration and filtration through soil media are not key components of bioswales; rather, bioswales are typically implemented to act as pretreatment and used to transport runoff to an associated bioretention cell or infiltration type of distributed BMP to provide additional pollutant removal and volume reduction. There are two primary types of bioswales: vegetated swales (which are linear), vegetated channels that convey concentrated flow to another structural BMP (detention, infiltration, storage), and vegetative filter strips (which are more broadly sloped than swales).

Vegetated Swale

Vegetative Filter Strip



Bioswale Integrated with Community Park/Trail

Anticipated Construction Activities: The construction of bioswales typically requires the removal and off-hauling of any impermeable surfaces within the bioswale footprint, and the regrading of site soils to facilitate drainage to the associated storage/infiltration BMP. Bioswales with more landscaping and natural contouring elements may have more complex grading.

- ***Planter Boxes.*** Planter boxes are bioretention systems enclosed in concrete structures. They are most commonly designed to drain runoff from paved areas or roofs. They are typically used in urbanize settings where space constraints limit the implementation of other LID elements such as bioswales and biorentention systems. Planter boxes may be designed to both filter and store runoff using a series of filter media and aggregate layers below the vegetated layers. They can be used in combination with rain barrels and cisterns that store the runoff and then direct it these boxes to filter the runoff.

  Anticipated Construction Activities: Construction activities associated with planter boxes will be in most cases much less than other types of distributed BMPs as the footprint of these BMPs are generally smaller and integrated into the construction and design of existing buildings and structures. The space saving advantages limits construction disturbance. Planter boxes for retrofit projects are generally fabricated off-site and installed after the ground surface is graded and prepared for the planters. Soil, filter media, and aggregate are generally brought to the site and placed in the planter boxes per the design requirements. Some excavation may be performed if portions of the planters

are set below ground and connected to existing drainage pipes and MS4 through an underdrain system in the planter box.

- ***Rainfall Harvest.*** Rainfall harvesting improves water quality by intercepting rooftop runoff and lowering the overall impervious impact of a developed site. Runoff can be reduced through interception and evapotranspiration on green roofs or used for alternative uses with a cistern or rain barrel. There are multiple kinds of rainfall harvest mechanisms; two of the more common are *green roofs* and *cisterns/rain barrels*. Green roofs are engineered, vegetated roof structures meant to intercept rainfall within a plant growth medium. Cisterns and rain barrels are storage tanks used to intercept and store rooftop runoff for nonpotable use such as landscape irrigation or gradual infiltration.

Green Roof

Cistern

Anticipated Construction Activities: Similar to planter boxes, construction activities associated with green roofs and cisterns will be in most cases much less than other types of distributed BMPs as the footprint of these BMPs are generally smaller and integrated into the construction and design of existing buildings and structures. Construction activities associated with rainfall harvest systems tend to be minimal unless cisterns are placed underground, in which case subsurface excavation would be necessary. The depth and extent of excavation will depend on the size of the cisterns, but for single to several parcel distributed systems, the excavation will generally be limited to 4 to 6 feet and an area of less than an acre.

- ***Flow-Through Treatment BMPs.*** Manufactured flow-through devices are commercial products that aim to provide stormwater treatment using patented, innovative technologies. Typical types of manufactured devices for stormwater management include *cartridge/media filters* and *high-flow biotreatment devices*. Cartridge/media filters are proprietary filtration devices used to remove pollutants; high-flow biotreatment devices are modular, vault-type practices that contain high-flow media and typically incorporate vegetation.

Media/Cartridge Filter

High-Flow Biotreatment(Photo Source: Jonathan Page, NCSU-BAE)

Curb Inlet Biofilter

Anticipated Construction Activities: The construction activities necessary to install flow-through treatment BMPs can vary based on the location, size, and configuration of the BMP. These BMPs are generally installed as part of the MS4 within catch basins and curb inlets. Typically, flow-through BMPs have a relatively small footprint (< 1 ac) because they are designed to provide a higher rate of pollutant removal/transformation than less engineered approaches (e.g. infiltration trenches). Stormwater moves through most flow-through treatment BMPs via gravity flow. This may require expansion of existing catch basins or installation of new catch basin or vaults to intercept and direct storm flows to these treatment units and back into the MS4. This may then require limited subsurface excavation and off-hauling to create the below-grade space for the treatment device. The extent and volume of excavation is much less than LID, retention and Green Street projects.

- ***Source Control BMPs.*** Source control structural BMPs are commercial products designed to treat runoff in highly urbanized environments. Mechanical separation, or more complex physicochemical processes, provides separation of gross solids and other pollutants. Many models feature media or materials designed to sequester hydrocarbons and other pollutants. Two types of source control BMPs are illustrated below: *catch basin inserts*, which use nets, screens, fabric, or similar filtration media to separate sediment and gross solids from stormwater, and *hydrodynamic separators*, which use screens, baffles, or vertical flow to separate the two.

Catch Basin Insert

Hydrodynamic Separator

Connector Pipe Screen

Anticipated Construction Activities: Similar to flow-through devices, the construction activities necessary to construct source control BMPs can vary based on the location, size, and configuration of the BMP, but are generally less than other types of distributed BMPs. Source control measures such as catch basin inserts and connector pipe screens are typically installed as retrofits to the existing MS4 within catch basins and curb inlets, and generally do not result in an increased ground disturbance footprint. Hydrodynamic separators may require expansion of existing catch basins or installation of new catch basins or vaults to intercept and direct storm flows to these treatment units and back into the MS4. This may then require limited subsurface excavation and off-hauling to create the below-grade space for the treatment device. The extent and volume of excavation is much less than LID, retention and Green Street projects, and is usually limited to less than one acre.

Specific examples of distributed BMPs that are in various stages of planning and implementation and part of a possible EWMP are presented in **Table 2-3**. The locations of these examples of planned distributed BMPs are shown in **Figure 2-2**. Table 2-3 presents the locations, project description, and key elements of the distributed BMPs to further illustrate these types of structural BMPs that may be part of an EWMP. Additional information and figures on the location and distribution of potential and priority BMPs, where data is available, are presented in Section 2.5, *EWMP Watershed Characteristics and BMP Implementation Strategies.*

TABLE 2-3
EXAMPLES OF PLANNED OR INSTALLED DISTRIBUTED BMP PROJECTS

EWMP Group	Project Name and Photo	Status of Project	Project Description	Project Features									
				Treatment	Recharge/ Infiltration	Storage	Habitat Restoration	Water conservation/ Reuse	Improved landscaping and aesthetics	Water Quality	Flood Protection	Wetland	Recreation
Dominguez Channel	**Phase IV Trash TMDL Implementation** 	Installation of catch basin covers began the summer of 2013.	This project primarily proposes the installation of catch basin (CB) opening screen covers and inserts in those structures found in the Santa Monica Bay, Machado Lake, and Dominguez Channel watersheds of the City of Los Angeles. The CB opening screen covers are coarse screens that are installed in the CB openings and prevent trash from entering the storm drain system. Each CB opening screen cover has a self-opening device activated by a self-determined street gutter flow to disengage its locking mechanism. The CB inserts are perforated screens that are installed inside the CB in front of the outlet pipe of the catch basin.	♦						♦			
Malibu Creek	**Citywide Smart Irrigation Control System** 	Unknown	This project calls for the installation of a smart irrigation control system using evapotranspiration technology. This system would be put into place at all City of Calabasas-owned facilities, street medians, and parkways. This project will reduce irrigation run off and prevents pollutants from reaching the receiving waters. Replacement of irrigation controllers is projected to provide regional benefits by reducing urban runoff that is associated with nutrient loaded recycled water used for irrigation and will reduce discharges of other pollutants to the MS4 system carried by overwatering of landscaped areas. The City uses 66,431 gallons of water on annual basis for landscape irrigation. It's anticipated that with the new system, the City will save between 13,300 to 16,600 gallons of water. It will translate to approximately 5,000 to 7,000 gallon of reduction in run-off.					♦		♦			

EWMP Group	Project Name and Photo	Status of Project	Project Description	Project Features									
				Treatment	Recharge/ Infiltration	Storage	Habitat Restoration	Water conservation/ Reuse	Improved landscaping and aesthetics	Water Quality	Flood Protection	Wetland	Recreation
North Santa Monica Bay Coastal Watersheds	**Wildlife Road Storm Drain Improvements** 	Construction work on the Wildlife Road Storm Drain Improvements project was scheduled to begin March 2014 and continue through August 2014.	This project is located within a developed residential neighborhood. Two existing storm drain inlets, SD-1 and SD-2 are located on Whitesands Place and Wildlife Road in the City of Malibu. The Project consists of the installation of bioretention swales and biofilters within the City Right of Way, treating stormwater and urban runoff prior to the entering of flows into City-owned catch basins. Due to the limited about of space within the City's Right of Way, the project will include a combination of bioretention swales and biofilters.	●						●			
Palos Verdes Peninsula	**Model Equestrian Center** 	Completion anticipated June 2015	The Model Equestrian Center project will use the existing municipal Peter Weber Equestrian Center, a 7.5-acre facility that houses 116 horses, to create a public demonstration site for environmentally sustainable horse-keeping practices while improving the quality of stormwater and other runoff. This project will be divided into two parts. Part A of this project will involve retrofits of the existing equestrian facilities to improve drainage and stormwater runoff quality. These retrofits will include downspout redirection, drainage correction from existing horse stalls, bioswale or similar water quality treatment system installation, cover for daily manure storage, and drainage improvements to existing arenas and the overall site. Water quality will be improved by providing a permanent cover for daily manure storage, directing runoff away from areas where horses are kept, and bioswales will provide stormwater treatment by filtering large particles in the swale and removing smaller particles and associated contaminants through the bioretention portion provided by the vegetation. Part B of this project involves new construction. A new 15,000-square-foot barn and associated improvements will be constructed on the 2.5-acre northwest portion of the site. Key water quality features will include a covered horse wash area with wash water captured and reused for subsurface irrigation to maintain appearance of habitat buffers and treatment bioswales, manure management to control vectors, odors and runoff, and a cistern or rain barrels to collect rainfall from the barn roof for use in irrigation. In addition, the facility will use low-impact development (LID) and green building techniques, integrated pest management through structural design, and equine-safe native and drought-proof plant buffers. Interpretive signage will demonstrate and educate the equestrian community on how the BMPs protect and improve stormwater quality. This signage will be installed to educate horse boarders and visitors on the specific BMPs integrated into the facilities and on the site.	●				●		●			
Upper LA River	**Brandon Street and Green Street Improvements Project** 	Construction Spring 2014 to Fall 2014	The project will reconstruct approximately 0.16 miles of roadway on Green Street and 0.39 miles on Brandon Street. The design includes several green street elements including permeable pavers, bio-retention planters, sediment filtration catch basins, and an underground infiltration basin. Much of the runoff from the streets and private properties that would have otherwise drained to the Rio Hondo will be directed to the infiltration area.	●	●			●		●	●		

EWMP Group	Project Name and Photo	Status of Project	Project Description	Project Features									
				Treatment	Recharge/ Infiltration	Storage	Habitat Restoration	Water conservation/ Reuse	Improved landscaping and aesthetics	Water Quality	Flood Protection	Wetland	Recreation
Upper San Gabriel River	**Avocado Heights Multiuse Trail Project** 	Constructed	The project will construct multiuse trails to provide a safer route to equestrian, bicycle, and pedestrian users away from existing traffic hazards. The majority of the existing roadway width will be reduced from 40 to 36 feet, thereby reducing the amount of impermeable surfaces as well as runoff. Approximately 2,300 feet of the multiuse trail on 5th Avenue will be constructed with decomposed granite to provide 14,000 cubic feet of infiltration capacity. In addition, an infiltration swale will be constructed at the end of 5th Avenue immediately adjacent to San Jose Creek to provide 3,200 cubic feet of capacity. Combined together, up to 115 acre-feet of groundwater will be recharged annually.	♦	♦	♦				♦	♦	♦	
Upper Santa Clara River	**Trash removal BMPs** 	Planned Implementation Date July 2015	Trash removal BMPs for 79 storm drains in a commercial/industrial park (County of LA) and 110 storm drain inlets in a commercial/industrial park (City of Santa Clarita).	♦						♦			

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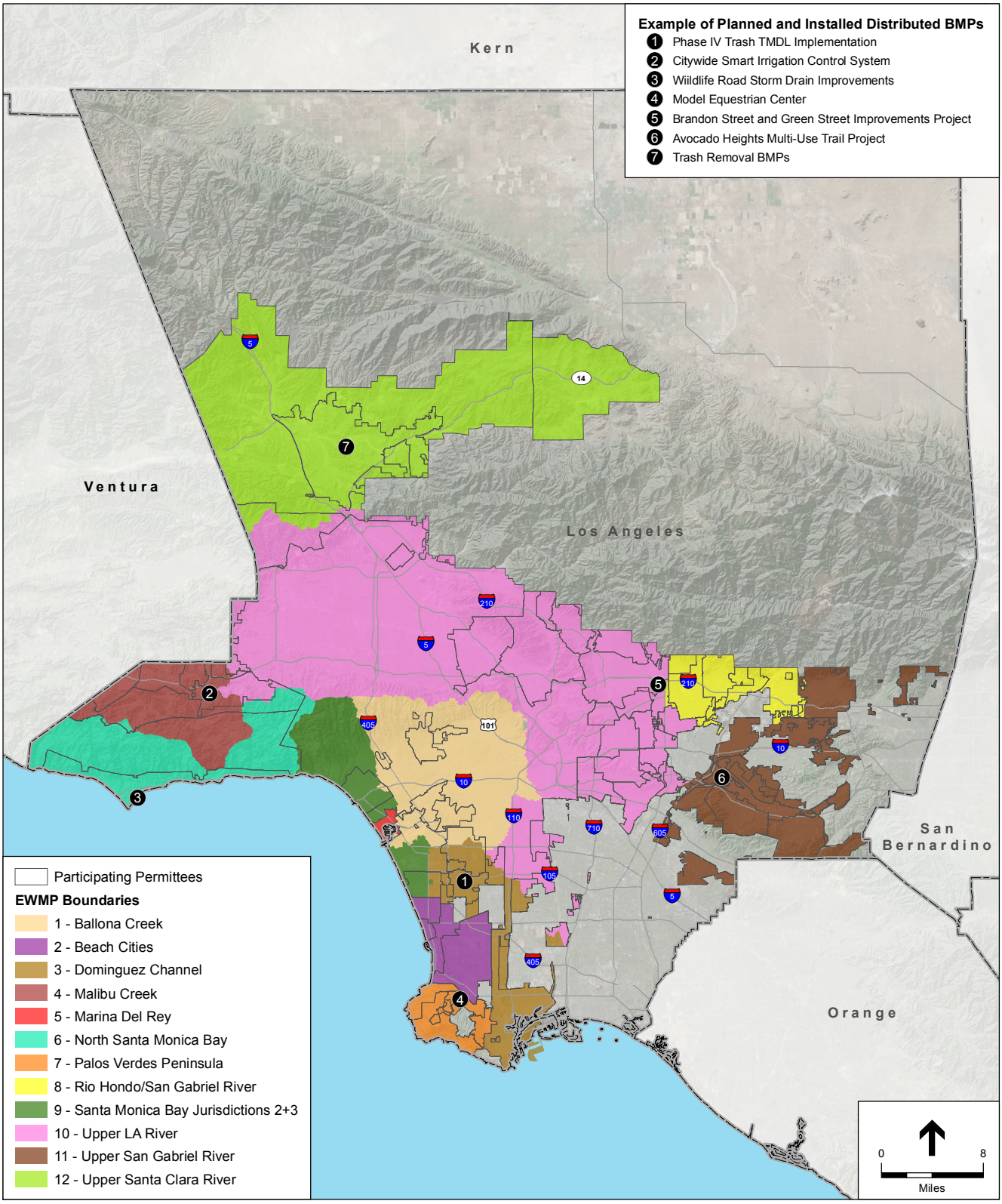


SOURCE: ESRI.

LA County PEIR EWMP . 140474

Figure 2-2

Location of Example Planned and Installed Distributed BMP Projects

2.4.4 Centralized Structural BMPs

Centralized structural BMPs use similar elements to the LID, infiltration and biofiltration type BMP used in distributed structural BMPs, but collect, store, treat and filter stormwater from multiple parcels and much larger drainage areas. Centralized BMPs also include diversion and treatment type BMPs that use similar technologies for these types of BMPs under distributed BMPs, but can be implemented on a much larger scale collecting, diverting and treating urban runoff (dry-weather flows) or limited stormwater flows from multiple parcels and large drainage areas. Therefore, centralized structural BMPs require greater footprints for construction and implementation, but provide a greater potential for water quality improvement through the filtering, treatment and/or infiltration of greater volume and rates of stormwater and urban runoff. Centralized BMPs that include storage and infiltration or storage and use have similar functions and construction methods to regional BMPs using the same stormwater management elements. However, regional BMPs have the distinct requirement per the Permit to retain on-site the 85th percentile 24-hour storm event for the drainage area served by the BMP (i.e., in the Los Angeles area, the 85th percentile storm is around 0.75 inch of rain in a 24-hour period). Finally, centralized BMPs include two unique BMP types, treatment wetlands and stream/creek restoration projects. Unlike the other structural BMP types described, these BMPs use natural systems to filter and clean the water. Treatment wetlands are typically off-line treatment systems that are not in the receiving waters, but may have habitat benefits through the establishment of more native plants and ecosystems. Creek, river, and estuary restoration projects provide a unique opportunity to restore natural cleansing processes, reestablish habitats and address impacts from hydromodification and urban runoff. These projects are the only BMPs that are implemented within the receiving water. Types of centralized structural BMPs and the definitions for these BMPs (which were taken from Los Angeles Department of Public Works' "Structural Fact Sheets") include the following:

- ***Infiltration BMPs.*** Infiltration facilities are designed to decrease runoff volume through groundwater recharge and improve water quality through filtration and sorption. Facilities can incorporate engineered media to improve percolation into native soils. Infiltration facilities can be *open-surface basins* or *subsurface galleries* (see the following photographs). Surface infiltration basins can be vegetated to encourage evapotranspiration and aesthetics; subsurface infiltration galleries are often used when limited land is available for BMP implementation. An example of a centralized infiltration BMP is the infiltration gallery that was installed as part of the Elmer Avenue Neighborhood Retrofit Project in Los Angeles. The project includes two infiltration galleries capable of infiltrating over 1,300 gallons a minute from a 40-acre drainage area (CWH 2014). Catch basins divert stormwater to the infiltration galleries, while bioswales capture and treat additional urban runoff.

Surface Infiltration Basin

Subsurface Infiltration Gallery

Anticipated Construction Activities: Centralized infiltration facilities are generally larger than distributed BMPs and can vary from 2 to 10 acres in size, depending on the number of parcels (drainage area). Subsurface excavation is typically required to replace native soils with highly porous infiltration media, vaults or other subsurface storage structures that will retain runoff and allow it to infiltrate into the subsurface. Larger underground storage and infiltration structures will require greater depths and volume of excavation. Depth of excavation of infiltration BMPs will depend on the storage requirements and depth to groundwater. Minimum separation distances of 10 feet to groundwater are typical. Excavation for these centralized infiltration project is generally 2 to 6 feet for surface infiltration and 4 to 10 feet for vault or infiltration gallery systems. Excavated soils must also be off-hauled unless the site is of an adequate size to allow balancing of cut and fill on-site. Subsurface infiltration galleries require that subsurface soils be excavated and replaced with highly permeable structures that rapidly infiltrate stormwater. These structures are typically transported to the site on flatbed trucks and then lowered into the ground using specialized cranes and related equipment. Subsurface infiltration galleries also require pretreatment facilities to remove sediment and debris prior to entering the galleries or vaults to reduce the potential for clogging. These systems increase the project footprint and required excavation by 25 to 50 percent of the vault footprint.

- ***Capture and Use BMPs.*** Capture and use BMPs capture stormwater runoff and store it for later use, typically as irrigation water. An example of a centralized capture and use BMP is the cistern at the Tuxford Green Project in Los Angeles. The cistern can hold up to 45,000 gallons of treated stormwater, which is then used to irrigate native landscaping.

  Anticipated Construction Activities: The construction activities for these BMPs are similar to those summarized for the infiltration galleries above with the exception that these galleries and vaults are designed to retain and reuse (not infiltrate) the stormwater. In addition to the anticipated ground surface disturbance and excavation for the installation of the underground storage units, these systems also require a pre- and post-treatment system that generally consist of additional and more sophisticated treatment steps and thereby a larger footprint. In addition, these systems need to be connected to a distribution system for the treated water that can be used for irrigation or for grey water or groundwater recharge systems. This additional infrastructure will require additional construction grading, excavation, and transportation of materials and equipment on--- and off-site.

- ***Bioinfiltration BMPs.*** Centralized bioinfiltration BMPs are a larger-scale version of their distributed counterpart, and typically incorporate elements of both infiltration (using native soils or underdrains) and treatment (using vegetated swales or filter strips).

  Anticipated Construction Activities: Bioretention and biofiltration BMPs typically require the permanent removal of aboveground infrastructure and/or surface materials such as asphalt and concrete for retrofit type projects and excavation and grading for projects on soil covered sites. Ground disturbance for bioinfiltration centralized BMPs is typically 2 to 5 acres in extent, but may extend in some limited applications up to 10 acres where space is available. The extent of land disturbance depends on the type of BMP and may be more linear for bioswales and filter strips, compared to larger continuous areas for bioretention cells that store and then filter or infiltrate stormwater. In areas proposed for biofiltration without suitably permeable soils, native soils will either have to be excavated, amended, and put back in place, or replaced entirely with biofiltration media (e.g., coarse gravels). The replacement of local soils would likely require that those soils then be hauled off-site. Systems with underdrains may require more extensive excavation and construction so that the underdrain can be connected to the MS4. The depth of excavation for these distributed systems will vary from several feet to up to 10 feet depending on the thickness and number of filter and storage layers. Generally, excavation is limited to 4 to 6 feet below existing grade for these systems.

- ***Detention BMPs.*** Centralized detention facilities are designed to detain runoff and improve water quality through pollutant settling. Facilities encourage settling by decreasing runoff flow rates and allowing ponding to occur. Detention facilities can be open-surface practices or subsurface galleries and can be dry during non-rainy seasons or wet year-round. *Surface detention basins* are designed to detain stormwater runoff for a specified amount of time so that particle-bound pollutants can settle. *Subsurface detention galleries* are underground storage systems designed to detain water in areas where limited land is available for BMP implementation.

Surface Detention Basin

Subsurface Detention Gallery

  Anticipated Construction Activities: Centralized detention facilities can range from between an acre to 5 acres in size, and up to 10 acres. Surface detention basins require the removal and off-hauling of surface armoring and infrastructure, as well as the excavation of adequate soil to create the target storage volume. Excavated soils may either be balanced on-site or hauled off-site; the latter is more likely in most cases due to the larger size of centralized basins. Surface detention basins may in some cases be utilized as recreational facilities during the dry season, allowing for the installation of features such

as athletic fields and benches. Subsurface detention galleries require the excavation of native soils and their replacement with engineered structures that detain water underground. The construction and installation of these structures can be complex and require the use of specialized cranes and related construction equipment.

- ***Treatment Facilities and Low-Flow Diversions.*** Other centralized water quality technology falls into the *low-flow diversion* (LFD) and *treatment facilities* subcategories. LFDs reduce stormwater pollution by diverting a design flow rate to a sanitary sewer for treatment. Treatment facilities convey stormwater through a physical, chemical, or radiological treatment system before returning it to the original channel, or diverting it for beneficial reuse. Below are photographs of an example LFD. LFDs may include on-site treatment of the diversion low flows prior to discharge back into the storm drain, or diversion to a local wastewater treatment plant. The LFD that has been installed at Marie Canyon in Malibu, shown in the photographs below, has an on-site treatment facility to reduce indicator bacteria concentrations prior to discharge back into the storm drain. This LFD is designed to filter and treat as much as 100 gallons per minute of dry-weather flows (Los Angeles Department of Public Works, 2007).

Treatment Facility

Low-Flow Diversion Dam and Inlet in a Storm Drain

Marie Canyon Low-Flow Diversion – Flat Gate Diverting flow to treatment unit for bacteria

Anticipated Construction Activities: Low-flow diversions and treatment facilities usually have a relatively small footprint of less than 2 acres. Construction typically requires subsurface excavation and off-haul of excavated soils in order to create adequate room for the subsurface engineered structures. The installation of these BMPs can often be complex due to the need to retrofit existing stormwater infrastructure and, in the case of LFDs, connect to active wastewater treatment infrastructure.

- ***Constructed Wetlands.*** Constructed wetlands are engineered, shallow-marsh systems designed to control and treat stormwater runoff. Particle-bound pollutants are removed through settling, and other pollutants are removed through adsorption and biogeochemical transformation. Constructed wetlands must always maintain a baseflow into the system, which can come from an intersected groundwater or an associated LFD using dry-weather flows. There are two primary types of constructed treatment wetlands: *wetland basins*, which have shallow permanent pools and outlet structures that regulate dewatering, and *flow-through/linear wetlands*, which are typically constructed parallel to existing channels so water can be easily diverted in/out of the wetland. An example of a treatment wetland includes the South LA Wetland Park, which will use an approximately 4.5-acre constructed wetland to treat a portion of the runoff from a 525-acre tributary watershed.

Wetland Basin

Flow-Through/Linear Wetland

Anticipated Construction Activities: Due to their multi-benefit nature and their ability to provide significant habitat benefits (most wetlands within the Los Angeles Basin have been lost to development and urbanization), most constructed wetland projects are greater than 5 acres in size and may be up to 10 acres or larger. Typical constructed wetland projects require extensive grading of site soils, though excavated soils are often balanced on-site to provide material for levees, berms, ecotones, and other flood control/habitat features. Many constructed wetland projects require the construction/installation of water control structures such as screw gates and culverts to manage how water is directed into, out of, and through the wetland. Constructed wetlands are often actively planted to accelerate the establishment of mature wetland vegetation and resultant stormwater treatment.

- ***Creek/River/Floodplain/Estuary Restoration.*** This category includes multi-benefit projects that typically combine elements of habitat restoration for fish and wildlife as well as flood management and water quality improvement. Project components such as setback levees, floodplain bench excavation, levee breaches, and other actions can increase the flood storage capacity of a water body and thereby slow flow rates. An example of a multi-benefit creek restoration project is the Tujunga Wash Greenway and Stream Restoration Project in Los Angeles. This project restored 1.2 miles of natural-bottomed creek habitats, which are capable of infiltrating up to 118 million gallons of stormwater form the wash into the local groundwater aquifer. Plants in the wash also aid the biogeochemical removal of pollutants such as nitrogen.

Before and After – Tujunga Wash Greenway Restoration Project

Anticipated Construction Activities: These projects may require ground disturbance and construction to convert lined flood channels into more naturalized creek/river systems. Projects are typically greater than 5 acres in size, and many have footprints of over 10 acres. This category of BMP may require removal and off-hauling of concrete and asphalt, grading/excavation/off-hauling of site soils (particularly if contaminants are present, since they could pose a threat to the health of fish and wildlife), the construction of elements such as setback levees and water control structures, and active revegetation with native plants. Projects that aim to enhance habitats within more naturalized settings (e.g., floodplain expansion along an unarmored/channelized creek) would have to account for the potential for construction to disturb existing natural communities, and incorporate appropriate impact avoidance/minimization/mitigation measures, though most projects are designed to be self-mitigating.

- ***Multi-benefit flood management projects.*** This category includes a broad range of redevelopment, transit, transportation improvement, and related projects that are designed to result in direct or indirect benefits to flood management. For example, greenway projects such as the Tujunga Wash Greenway project that incorporates infiltration and/or detention elements can improve flood management by reducing stormwater flow rates and/or volumes.

  Construction Impacts. Multi-benefit flood management projects are typically expansive projects that range from a few to tens of acres in size. Construction requirements can vary extensively based on the nature of the project. Because of their scale, multi-benefit flood

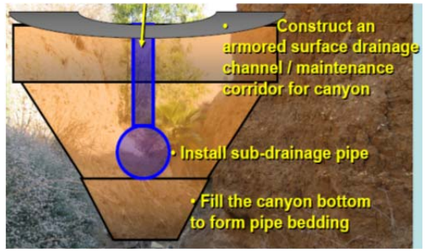
management projects usually require extensive excavation and grading of site soils, off-hauling of soils and related materials, utility relocation, infrastructure construction, and related activities. It is not uncommon for these types of projects to be constructed over multiple construction seasons.

Specific examples of centralized BMPs that are in various stages of planning and implementation and are part of the EWMP are presented in **Table 2-4**. The locations of these examples of planned and implemented centralized BMP are shown in **Figure 2-3**. Table 2-4 presents the location, project description and key elements of the centralized BMPs to further illustrate these types of structural BMPs that are part of the EWMP. Additional information and figures on the location and distribution of potential and priority BMPs, where data is available, are presented in Section 2.5, *EWMP Watershed Characteristics and BMP Implementation Strategies*.

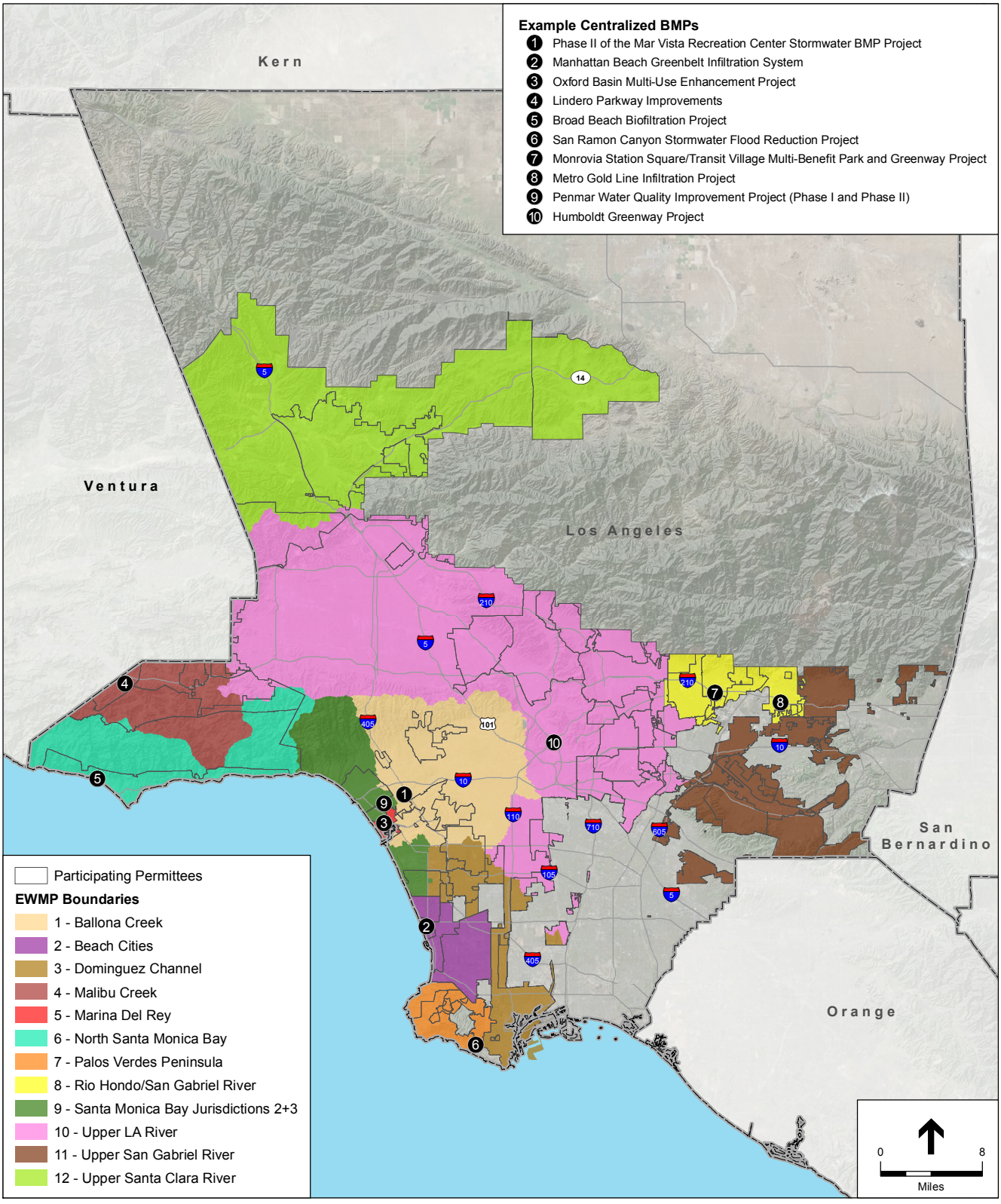
TABLE 2-4
EXAMPLES OF PLANNED CENTRALIZED BMP PROJECTS

EWMP Group	Project Name and Photo	Status of Project	Project Description	Project Features									
				Treatment	Recharge/ Infiltration	Storage	Habitat Restoration	Water conservation/ Reuse	Improved landscaping and aesthetics	Water Quality	Flood Protection	Wetland	Recreation
Ballona Creek	**Phase II of the Mar Vista Recreation Center Stormwater BMP Project** 	Phase II is expected to be completed by December 2014.	The Phase II project components are expected remove 6,000 gallons per day (5.5 acre-ft/year) of stormwater and provide additional storage space for the underground cisterns that were constructed during Phase I. Phase I facilities include : 1) storm drain diversion structure; 2) trash maintenance hole; 3) stormwater lift station; 4) hydrodynamic separator; 5) 270,000-gallon underground detention tank; 6) disinfection facility; 7) overflow/return piping; and 8) pump and control systems. Phase I was completed and is operational at limited capacity. Phase II includes the following stormwater beneficial reuse components: • Stormwater drip irrigation system for 43 shrubs, 86 bushes, and 68 trees • Installation of an irrigation pump station and associated components • Creation of 3,800 square feet of plant community • Installation of back-flow prevention system • Construction of flow containment curbs The objective of Phase II is to include an irrigation system to beneficially use the treated water at the park, to increase the treatment capacity of the facility and associated pollutant load reductions and to conduct a facility optimization project to fine-tune the grey and green infrastructure components of the project and optimize overall performance of the facility.	●		●		●	●	●			
Beach Cities WMG	**Manhattan Beach Greenbelt Infiltration System**  	The project construction was completed February 19, 2013.	The Manhattan Beach Greenbelt Infiltration project was designed to utilize the linear greenbelt parkland which runs through the City of Manhattan Beach to intercept and infiltrate dry-weather and wet-weather low flows from existing storm drains that cross or abut the parkway. Low flows from a 50-acre drainage area are screened to remove trash and gross solids before flowing by gravity to a subsurface infiltration system which also provides limited storage of storm flows for subsequent percolation into the sandy soils below the greenbelt. The Greenbelt Low Flow Infiltration system was designed to effectively divert dry-weather and wet-weather low flows from the storm drain system year round.	●	●	●			●	●			

EWMP Group	Project Name and Photo	Status of Project	Project Description	Project Features									
				Treatment	Recharge/ Infiltration	Storage	Habitat Restoration	Water conservation/ Reuse	Improved landscaping and aesthetics	Water Quality	Flood Protection	Wetland	Recreation
Marina Del Rey	**Oxford Basin Multi-Use Enhancement Project** 	LACFCD anticipates the project to commence construction by the end of this year or early 2015.	The project involves removing approximately 3,000 cubic yards of accumulated contaminated sediment from the bottom of Oxford Basin, constructing a berm in the center of Oxford Basin to enhance water quality through circulation, planting new native or drought-resistant plants, and installing new bioswales. The proposed berm that will be installed to improve circulation, in conjunction with the reprogramming of the operating cycles of the existing tide gates, will maximize the circulation of the water around the berm during the daily tidal cycles. During a rising tide, the water will enter via one of the tide gates on one side of the new berm, circulate around Oxford Basin, and then exit via a second tide gate during a falling tide. This innovative approach to improving water quality through circulation will increase dissolved-oxygen levels in the water within Oxford Basin, which is expected to result in less algae growth, lower bacteria levels, and reduction of unpleasant odors. The proposed project will also implement Low-Impact Development features to reduce the impacts of the existing roads adjacent to Oxford Basin. The project's Low-Impact Development features include a bioswale along the bike path at Washington Boulevard to collect surface runoff and two bioretention systems along Admiralty Way to collect local runoff from the roadway. The project will also enhance recreational opportunities for visitors through the installation of observation areas and decks, interpretive signage, a lighted walking/jogging path, and fencing that will provide enhanced viewing of the improved habitat.	●			●		●	●			●
Malibu Creek	**Lindero Parkway Improvements**  	Construction of the proposed improvements is expected to commence either Spring 2015 or early Summer 2015.	The project is part of an overall City of Westlake Village streetscape improvement project that creates infiltration and urban pollutant mitigation opportunities along all arterial medians and parkways. This parkway project is 30 foot wide by over a mile long. Half of this parkway was originally a flood control maintenance road and the other half a landscaped area. This project will have a Riparian Zone theme. With the new project, the combined width of the old maintenance road and landscaped area, this area will become a new walking path where there is currently no sidewalk. This project, when completed, will provide a long and meandering walking path with conversation seating areas. This project will also include drainage facilities that will include specific BMP's. The newly renovated area will be drained via bio-swales throughout the entire length of the project. These swales will meander thru the entire length with the main goal of percolation and evaporation of all nuisance flows throughout the year. Stormwater runoff would then be treated in the bio-swale followed by discharge into Westlake Lake. This project will also have educational signage on a riparian zone and the stormwater cleanup objectives of this project.	●					●	●	●		●

EWMP Group	Project Name and Photo	Status of Project	Project Description	Project Features									
				Treatment	Recharge/ Infiltration	Storage	Habitat Restoration	Water conservation/ Reuse	Improved landscaping and aesthetics	Water Quality	Flood Protection	Wetland	Recreation
North Santa Monica Bay Coastal Watersheds	**Broad Beach Biofiltration Project** 	January 2014 (Commencement of Construction) June 2014 (Completion)	The Project consists of the installation of different types of biofilters at nine catch basins within the City of Malibu Right of Way, treating stormwater and urban runoff prior to the entering of flows into City-owned catch basins, which discharge to privately owned storm drain systems. The Project includes a combination of biofilters, and flow control, with potential to incorporate harvest and use systems for Malibu drains. Three types of biofilters are contemplated; small footprint biofilters, biofilters with volume control, and harvest and use systems.	●				●		●			
Palos Verdes Peninsula	**San Ramon Canyon Stormwater Flood Reduction Project** 	Anticipated to be completed June 2015.	The San Ramon Canyon provides a natural drainage course for areas near Palos Verdes Drive East. Because of the geographical characteristics of the San Ramon Canyon, landslide induced rock and soil deposits in the canyon bottom are transported during heavy rainfall events. This creates flooding of the roadway, overwhelming existing drainage facilities, endangering nearby roadway integrity and threatening downstream residents. The San Ramon Canyon Stormwater Flood Reduction Project, involves significant drainage restoration work to stabilize Palos Verdes Drive East and Palos Verdes Drive South.							●	●		
Rio Honda - San Gabriel River	**Monrovia Station Square/Transit Village Multi-Benefit Park and Greenway Project** 	Planned Implementation Date Spring 2015.	This project will include design and development of a 2.5-acre multi-benefit green space along the future Metro Gold Line Foothill Extension. The project includes a multi-use trail, native trees and shrubs, runoff storage and infiltration systems prior to discharging into Sawpit Wash and Peck Road Water Conservation Park to the south.	●	●	●			●	●			●

EWMP Group	Project Name and Photo	Status of Project	Project Description	Project Features									
				Treatment	Recharge/ Infiltration	Storage	Habitat Restoration	Water conservation/ Reuse	Improved landscaping and aesthetics	Water Quality	Flood Protection	Wetland	Recreation
Rio Honda - San Gabriel River	**Metro Gold Line Infiltration Project**	Planned Implementation Date Spring 2016.	The City of Azusa in coordination with the Foothill Construction Authority for the Gold Line Project has constructed infiltration systems at some of the major crossings in town. Infiltration will occur at the catch basins which are soft bottom. Anticipated tributary areas are approximately 17 acres and will include the rail corridor. The 10 year storm event is to be infiltrated.		●	●				●			
Santa Monica Bay Jurisdictions 2 and 3	**Penmar Water Quality Improvement Project (Phase I and Phase II)** 	Phase II – expected completion by Spring 2015.	Phase II of the Penmar project is expected to supply approximately 34.7 million gallons of treated water per year for irrigation of Penmar Golf Course and the Penmar Park & Recreation Center in the City of Los Angeles and the Marine Park in the City of Santa Monica. Replacing this volume of potable water with treated storm water produced in Phase II provides 34.7 million gallons per year increase to annual runoff diversion capacity of Phase I, resulting in a significant pollutant load reduction into the Santa Monica Bay. Phase II entails the incorporation of the reuse component of the project offering additional water quality benefits as well as multi-regional benefits. By installing the reuse option, the overall project capacity will increase, thereby also increasing the volume of urban runoff that can be retained by the project for use as an alternative source of water to potable water for landscape irrigation.	●				●		●			
Upper LA River	**Humboldt Greenway Project** 	Under Construction	This project will intercept an existing storm drain system and construct a stormwater greenway with a “stream” eco-system through the corridor on Humboldt Street with a pedestrian path connecting Avenue 18 and Avenue 19. The project is adjacent to the Los Angeles River, just north of Civic Center area of the City of Los Angeles. The bioremediation elements include a pollution reduction/infiltration system and an approximately 175-foot-long graded swale/open-channel, which is surrounded by a vegetated basin. Work also includes a) an overflow structure; b) a pedestrian bridge; c) an irrigation system; d) landscaping and tree planting; and e) solar lighting.	●	●			●	●				●



SOURCE: ESRI.

LA County PEIR EWMP . 140474

Figure 2-3
Location of Example Planned and Installed Centralized BMP Projects

2.4.5 Regional Structural BMPs

Regional structural BMPs are those that can capture the volume of water from an 85th percentile, 24-hr storm in a contributing watershed, known as the *design volume (*Generally, the 85th percentile storm is approximately 0.75 inches over 24 hours). The two types of regional BMPs are retention/infiltration and capture and use, though many regional projects would incorporate more than one BMP type. The definitions of these BMPs are the same as for centralized BMPs with the exception that they can capture the design volume. Like centralized BMPs, regional BMPs can be implemented in a broad range of land use types, from high-density urban to open space, and can have multiple benefits (e.g. habitat, recreation, aesthetics). An additional example of a multi-benefit/multi-type regional BMP is the suite of improvements being made to Sun Valley Park in Los Angeles. The project's BMPs improve stormwater quality and alleviate local flooding by collecting runoff from a 21-acre drainage area, routing it through flow-through treatment units (hydrodynamic separators and settling units) to remove suspended solids and heavy metals, and directing it into two underground infiltration galleries buried beneath soccer and baseball fields. Bioswales at the site treat local runoff and are vegetated with native plants.

Sun Valley Park Regional Infiltration Project – (from upper left to lower right) Storm water Pre-Treatment Devices to Remove Trash and Sediment / Bioswale and Bioretention Area / Construction of Underground Storage and Infiltration Vaults

Anticipated Construction Activities: The construction activities for regional BMPs are generally similar to those of their centralized counterparts, with the exception of regional retention BMPs, which must have adequate storage capacity to hold runoff from the design storm. The need for this capacity will generally result in more extensive excavation and off-hauling of site soils. Larger, multi-benefit regional BMPs are similar to centralized multi-benefit regional flood management projects (above) that their scale and complexity often requires an intensive construction effort executed over multiple seasons.

Specific examples of regional BMPs that are in various stages of planning that are part of the EWMP are presented in **Table 2-5.** The locations of these examples of regional BMPs are shown in **Figure 2-5**. Table 2-5 presents the location, project description, and key elements of the regional BMPs to further illustrate these types of structural BMPs that are concepts being developed through the EWMP process. Additional information and figures on the location and distribution of potential and priority BMPs, where data is available, are presented in Section 2.5, *EWMP Watershed Characteristics and BMP Implementation Strategies.*

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TABLE 2-5
EXAMPLE OF PLANNED REGIONAL PROJECTS

EWMP Group	Project Name and Photo	Status of Project	Project Description	Project Features									
				Treatment	Recharge/ Infiltration	Storage	Habitat Restoration	Water conservation/ Reuse	Improved landscaping and aesthetics	Water Quality	Flood Protection	Wetland	Recreation
Beach Cities WMG	**Torrance Stormwater Basin Recharge and Enhancement Project** 	Construction was scheduled for Spring 2014.	The Torrance Stormwater Basin Recharge and Enhancement Project will retrofit three existing detention basins serving 1,453 acres of drainage area in total within the City of Torrance. The project will use a number of BMPs to conserve water, recharge the aquifer, create critical habitat, and improve stormwater quality that discharges into the Santa Monica Bay, and eliminate non-stormwater discharges to the Dominguez Channel. This Stormwater Basin Recharge and Enhancement project proposes significant advances over the current system by providing wetland treatment of stormwater and non-stormwater runoff at the detention basins, recharging vitally needed groundwater supplies, and sustaining wetland habitat during the dry season in the basins. The Project will eliminate dry-weather runoff and associated load for multiple pollutants. The Project will treat all stormwater from 1,453 acres for multiple pollutants, including priority pollutants such as trash and sediments by a combination of wetland treatment and infiltration. The project will capture and recharge an estimated 20 acre feet per year of runoff that would have otherwise been discharged to the Santa Monica Bay. The project will enable the elimination of all discharges from the drainage area to Dominguez Channel, will eliminate dry-weather discharges to Santa Monica Bay and will reduce the wet-weather discharge to the Santa Monica Bay from this system.	♦	♦	♦	♦	♦	♦			♦	
North Santa Monica Bay Coastal Watersheds	**Malibu Legacy Park Pump Station Improvements** 	Anticipated to be completed June 2015.	Malibu Legacy Park is a regional project that provides water quality and water resources benefits. The project exceeds requirements to put over 300 acres of Malibu (including City Hall) into full compliance with Malibu Creek Bacteria TMDL requirements, providing a capture volume consistent with Los Angeles Standard Urban Stormwater Mitigation Plan requirements (assuming no upstream LID or source control measures). Captured water is managed, disinfected, and used to offset potable water uses for park irrigation.	♦	♦	♦		♦	♦			♦	♦

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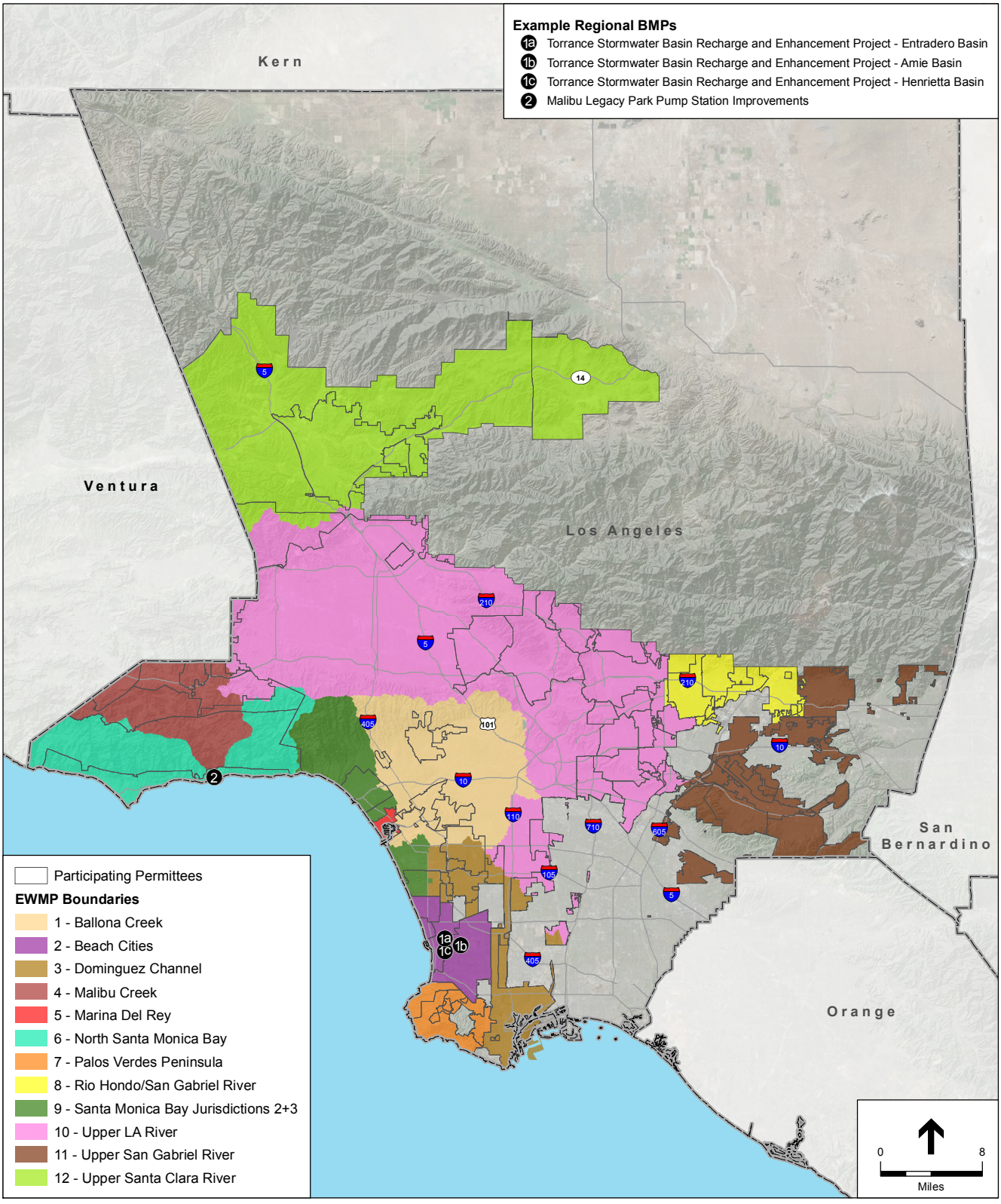


SOURCE: ESRI.

LA County PEIR EWMP . 140474

Figure 2-4

Location of Example Planned and Installed Regional BMP Projects

2.5 EWMP Watershed Characteristics and BMP Implementation Strategies

Summarized below are the general characteristics of the watersheds within the EWMP Groups and the overall strategies for BMP implementation that reflect these characteristics. The twelve EWMPs are consolidated to six watershed areas grouped by similar watershed characteristics. This summary provides additional detail on the distribution and location of potential and priority BMPs, where data is available, based on the overall BMP implementation strategy and maps of BMP distribution. These maps are presented for each EWMP and show the location and distribution of planned and priority regional/centralized BMPs for which data are available at the time of publication of this PEIR. The priority BMPs are a subset of the potential BMPs that have undergone a site review and project evaluation that has identified these BMPs as a priority. These priority projects are shown based upon available data at the time of publication of this PEIR. **Appendix G** provides the location and general description of the priority BMPs shown on the figures referenced in this discussion. Distributed BMPs are planned to be implemented throughout the urbanized areas of each EWMP.

1. **South Santa Monica Bay EWMP Watersheds** (Marina del Rey, Ballona Creek, Beach Cites, South Santa Monica Bay Jurisdictional Group 2 and 3, and Peninsula Cities EWMP groups) – These watershed groups are dominated by urbanized beach communities with high density residential and commercial land uses throughout the watershed. Key BMP strategies in these watersheds are to address dry and wet-weather flows that may impact beach water quality through bacteria loading. Other water quality priorities include trash, marine debris, metals, and toxics. The BMP strategy includes LFDs to comply with dry-weather metals and bacteria Total Maximum Daily Loads (TMDLs). Although large regional and centralized retention and infiltration BMPs will be part of the wet-weather pollutant load reduction strategy, the predominate structural BMP will be smaller distributed BMPs such as bioinfiltration, media filtration, and flow-through BMPs located in street right-of-ways, parking lots, landscaped areas, and as part of green streets and buildings.

   Because of the high ground water near the shore, capture and reuse regional projects or treatment BMP opportunities will be preferred. The receiving waters for the South Santa Monica Bay include the Santa Monica Bay, the Ballona Creek, and the Marina del Rey Harbor.

   Marina del Rey EWMP – **Figure 2-5** provides the location and distribution of potential regional/centralized BMPs for the Marina del Rey EWMP. Distributed BMPs will be located throughout the urbanized areas of the EWMP. Because of the tidal influence of the marina to most of the watershed, regional projects will be located near the upstream end of the watershed where ground water depths are favorable. The tidally influenced areas will consist of mostly treatment distributed BMPs, including bioinfiltration or tree wells.

Ballona Creek EWMP – **Figure 2-6** provides the locations and distribution of potential regional/centralized BMPs for the Ballona Creek EWMP. Regional infiltration BMPs will be well distributed throughout the watershed and will be incorporated with distributed BMPs consisting mostly of distributed BMPs such as green streets. LFDs may also be pursued to comply with dry-weather TMDL requirements.

Beach Cities EWMP – Figure 2-7 provides the location and distribution of potential regional/centralized BMPs for the Beach Cities EWMP. Distributed BMPs will be located throughout the urbanized areas of the EWMP. The Beach Cities will focus their efforts on regional projects near the outlet on the Beach similar to the Hermosa Beach Infiltration Trench or the Torrance infiltration basins. Where regional projects are infeasible, distributed projects will be implemented such as green streets.

Santa Monica Bay J2/3 – Figure 2-8 provides the location and distribution of potential regional/centralized BMPs for the Santa Monica Bay J2/3 EWMP. Many efforts have already been completed for the Santa Monica Bay J2/J3 Watershed including LFDs and reuse facilities. The group will investigate the possibility of more regional projects that are able to capture and reuse the flow. Remaining areas will be subject to distributed BMPs.

Peninsula Cities – Figure 2-9 provides the location and distribution of potential regional/centralized BMPs for the Peninsula Cities EWMP. Distributed BMPs will be located throughout the urbanized areas of the EWMP. The Santa Monica Bay J7 side of the Peninsula Cities area is mostly comprised of anti-degradation sites so there will not be many control measures in this subwatershed.

2. **Northern Coastal EWMP Watersheds** (Malibu Creek and North Santa Monica Bay Coastal Watersheds EWMP groups) **–** These watersheds are characterized by lower density development along the coast and the larger creeks with greater open space and park areas inland. There is increased development in the upper areas of the Malibu Creek Watershed. Receiving waters in these watersheds are largely unlined and riparian corridors remain.

   Water quality priorities include bacteria, toxics, trash, and nutrients as well as benthic community impairments. **Figures 2-10 and 2-11** provide the location and distribution of potential regional/centralized BMPs for the Malibu Creek and North Santa Monica Bay Coastal Watersheds EWMP groups, respectively. Smaller distributed BMPs that include biofiltration, media filtration, green streets, and flow-through BMPs will be used in greater percentage than larger centralized BMPs and will be located in developed areas as retrofit BMPs.

3. **Upper San Gabriel Watershed –** This watershed is characterized by higher density development in the lower watershed area and lower density and open space in the upper watershed where the foothills to the San Gabriel Mountains begin. The priority pollutants in these watersheds include selenium in dry-weather flows, and metals in wet weather flows. This watershed is further differentiated by the importance of groundwater recharge basins that are supplied by a series of reservoirs further upstream in the mountains. The San Gabriel

River is unlined in the upper watershed and conveys controlled non-storm and storm flows to recharge basins and downstream sections of the river. **Figure 2-12** provides the location and distribution of potential regional/centralized BMPs for the Upper San Gabriel EWMP. The BMP strategy in this watershed focuses more on regional and centralized retention and infiltration BMPs that take advantage of the favorable groundwater recharge characteristics of this area. These BMPs are located near or adjacent to the river. Distributed smaller BMPs are located in urbanized areas as retrofits in existing developments and streets.

4. **Rio Hondo/San Gabriel and Upper Los Angeles River Watersheds** (Rio Hondo/ San Gabriel and Upper Los Angeles EWMPs) – These watersheds traverses a large diverse area of the Los Angeles Basin with characteristics of Upper San Gabriel in the farthest upper reaches near the foothills, but most of this watershed is characterized by greater urbanization similar to Ballona Creek watershed. The greater urbanization also results in additional priority pollutants compared to Upper San Gabriel watershed, and include nutrients, trash, metals, bacteria and sediment impacted by metals and organic compounds (DDT, PCBs, PAHs).

   The Rio Hondo/San Gabriel EWMP is characterized by increasing urbanization south of the foothills and industrial and commercial development along the 210 corridor. **Figure 2-13** provides the location and distribution of potential regional/centralized BMPs for the Rio Hondo/San Gabriel EWMP. The strategy for the locations and types of regional/centralized BMPs is to use remaining available sites for retention and infiltration, which takes advantage of the favorable infiltration rates of this area, including existing groundwater recharge basins near the San Gabriel River. Distributed BMPs will be located in throughout the urbanized areas of the EWMP.

   The Los Angeles River is approximately 51 miles long, and five of six reaches lie within the Upper Los Angeles River EWMP. The natural hydrology of the Los Angeles River watershed has been altered by channelization and the construction of dams and flood control reservoirs. The Los Angeles River and many of its tributaries are lined with concrete for most or all of their length. Soft-bottomed segments of the Los Angeles River occur where groundwater upwelling prevents armoring of the river bottom. **Figure 2-14** provides the location and distribution of potential regional/centralized BMPs for the Upper Los Angeles River EWMP. Because of the greater extent and number of pollutant priorities, the BMP strategy in the Upper Los Angeles River watershed includes well over a hundred planned regional and centralized retention and infiltration BMPs that take advantage of the favorable groundwater recharge characteristics in defined areas of the watershed. Also planned are centralized treatment wetlands and bioinfiltration BMPs in parks and open spaces with favorable subsurface soils that promote higher infiltration rates. The BMP strategy also includes distributed smaller BMPs located throughout the urbanized areas of the watershed as retrofits in existing developments and streets. LFDs to comply with dry-weather bacteria TMDLs may also be included.

5. **Dominguez Channel Watershed** (Dominguez Channel EWMP, Beach Cities, Peninsula Cities) **–** This watershed is differentiated by a larger area of industrial land use, but also includes Beach Cities and Machado Lake. Because of the high density of development and industrial land uses, large regional and centralized infiltration type BMPs will be limited. **Figure 2-15** provides the location and distribution of potential regional/centralized BMPs for the Dominguez Channel EWMP. The structural BMP strategy will be more LFDs, both large (centralized) and small (distributed), located at MS4 outfalls near the channelized Dominguez Chanel. The other BMP strategy are smaller distributed BMPs that include the LID type BMP such as Green Streets and biofiltration BMPs throughout the Beach Cities. These distributed BMPs will be retrofit type BMPs that treat runoff from already developed properties and are located in street right-of-ways, parking lots, and limited open areas on public and private parcels. Distributed flow-through treatment BMPs will also be the other predominant BMP that will be retrofitted to the existing MS4 systems.

6. **Upper Santa Clara River Watershed –** The Santa Clara River Watershed is distinctive in that it is predominantly open space—nearly ninety percent of the watershed—is open space with approximately 88 percent being undeveloped. The watershed contains one of the last remaining natural rivers in Southern California. In years of significant rainfall, ephemeral springs and year-round flows exist in some tributaries and natural upstream areas. Flows in Santa Clara River reaches that pass through the EWMP area are predominantly stormwater runoff during wet-weather months and water reclamation plant effluent discharges in the drier months. Priority pollutants in the watershed are bacteria, nutrients, and chloride. In the source assessments for the Nutrients TMDL and the Chloride TMDL for the Santa Clara River, the storm drain system is not considered the primary source of these pollutants. Lake Elizabeth is also subject to a trash TMDL. The EWMP will evaluate potential MS4 nutrients and chlorides contributions and serve as the implementation plan for the Bacteria TMDL. BMP strategies for this watershed are likely to include a focus more on regional and centralized retention and infiltration BMPs and less on filtration type BMPs, which are not as effective at addressing bacteria. **Figure 2-16** provides the location and distribution of potential regional/centralized BMPs. Distributed BMPs will be located in the urbanized areas of the EWMP.

   As shown in Figures 2-5 through 2-16, each of the EWMPs involves a wide distribution of BMPs to achieve permit compliance. Appendix G provides the locations and general descriptions of the priority BMPs (where data is available), shown in Figures 2-5 through 2-16. Priority Projects are projects that have been identified through the EWMP process as targeted for implementation within the first years following the EWMPs approval by the LARWQCB. Identification of Priority Projects is underway and has not been completed by all EWMPs at this time. The PEIR is being prepared in parallel to the EWMPs. Priority Projects will be defined in all the EWMPs to be submitted for public comment in June 2015. Priority Projects that have been identified at this time through the EWMP process are shown on the following figures. Priority Projects may be regional, centralized or distributed type BMPs. For potential projects that are shown on the following figure, the location of potential regional and centralized BMPS are shown. Distributed BMP will be distributed throughout the urbanized areas and are not shown on the following figures. Because of land availability

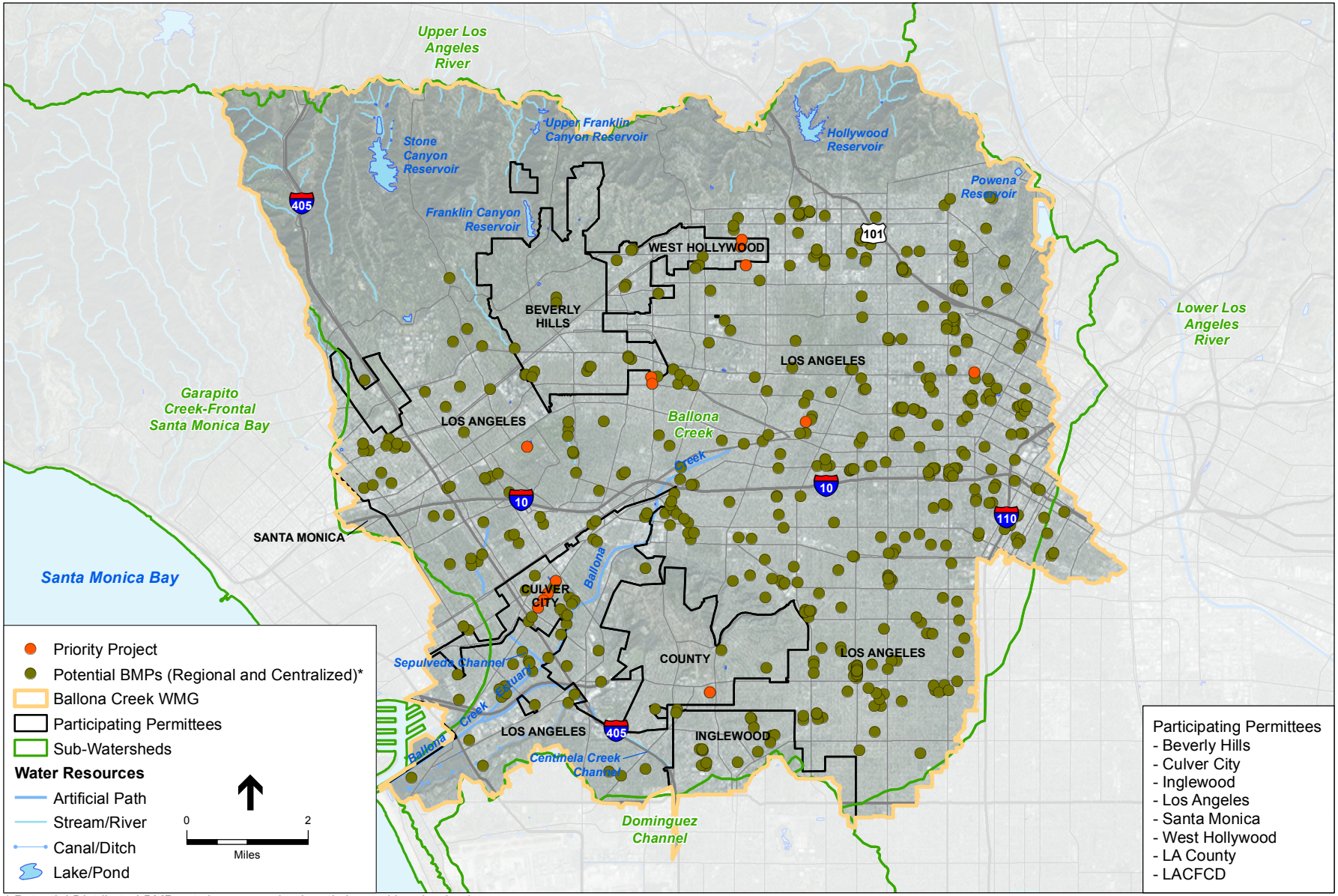
restrictions, large parcels that can support regional or centralized BMPs are fewer and more difficult to obtain than smaller parcels or easements needed for distributed BMPs. The overall strategy engaged by each of the WMGs is to maximize the benefits of regional and centralized BMPs while relying on distributed and non-structural BMPs to achieve a larger majority of the water quality improvement benefits provided by the EWMP. The distributed BMPs will be scattered throughout the watersheds, predominantly in urbanized areas, resulting in widely distributed implementation impacts as discussed in Chapter 3.

SOURCE: ESRI; National Hydrology Dataset.

LA County PEIR EWMP . 140474

Figure 2-5

Marina del Rey
Watershed Management Group

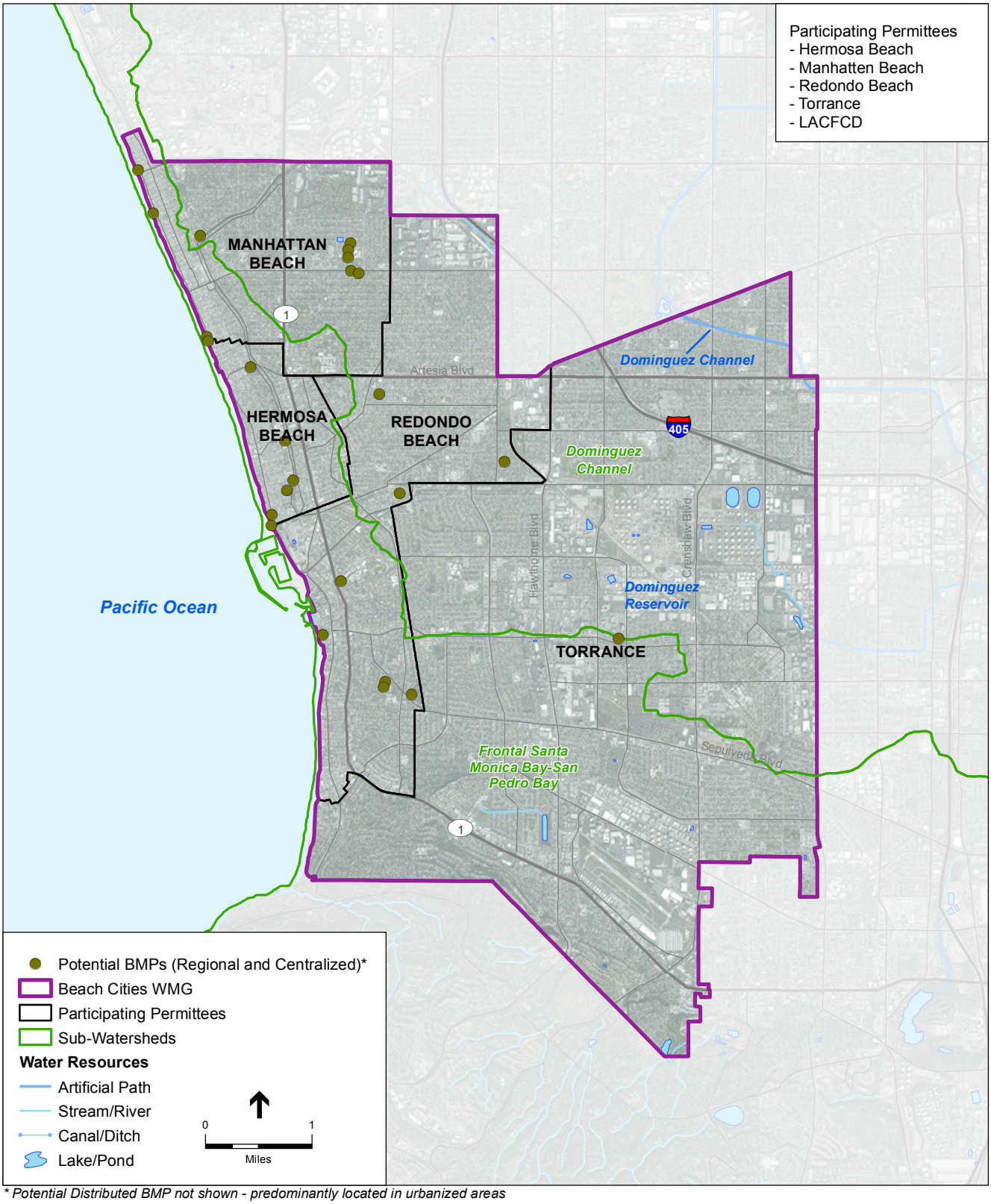


** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: ESRI; National Hydrology Dataset.

LA County PEIR EWMP . 140474

Figure 2-6
Ballona Creek
Watershed Management Group



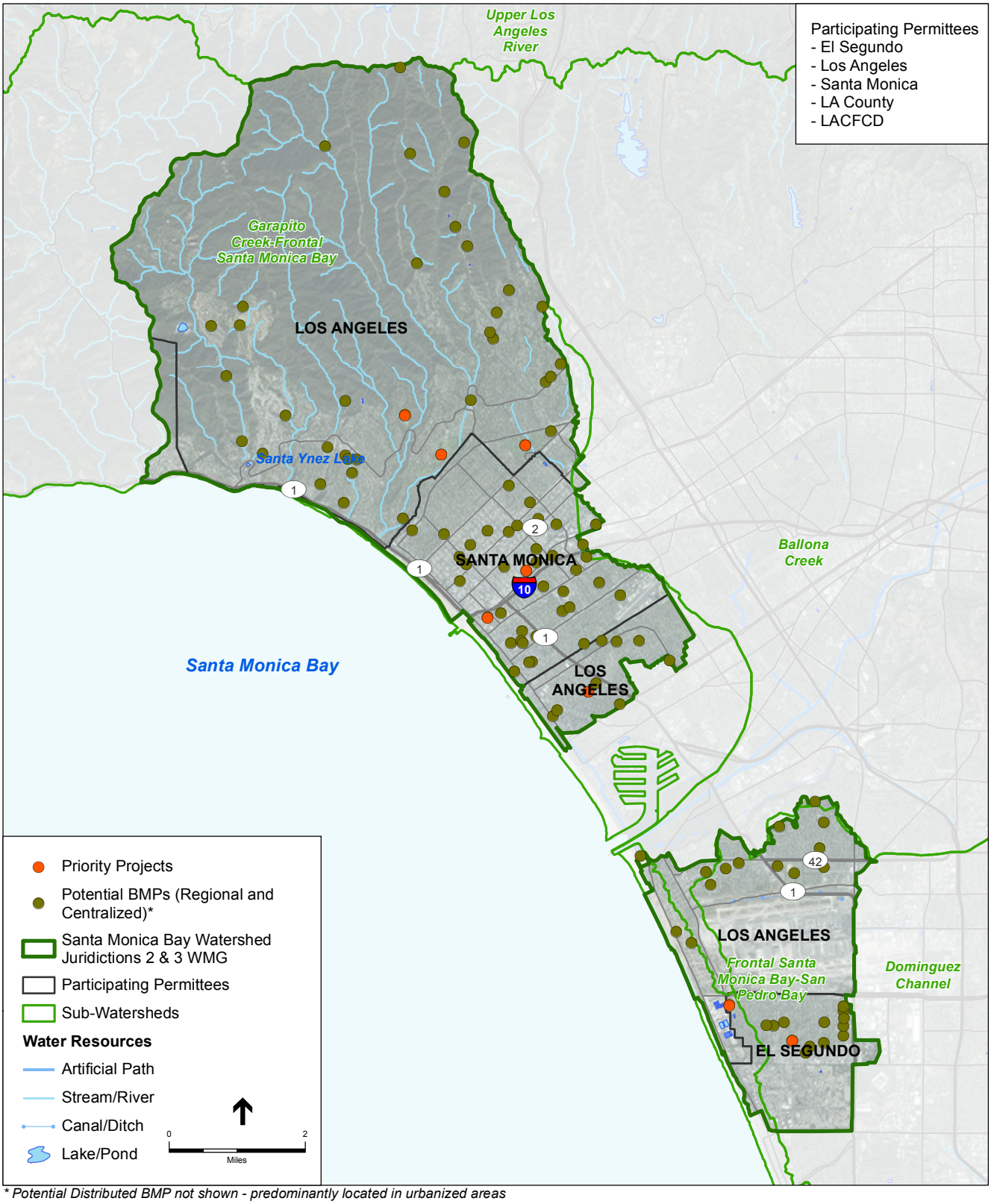
** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: ESRI; National Hydrology Dataset.

LA County PEIR EWMP . 140474

Figure 2-7

Beach Cities Watershed Management Group



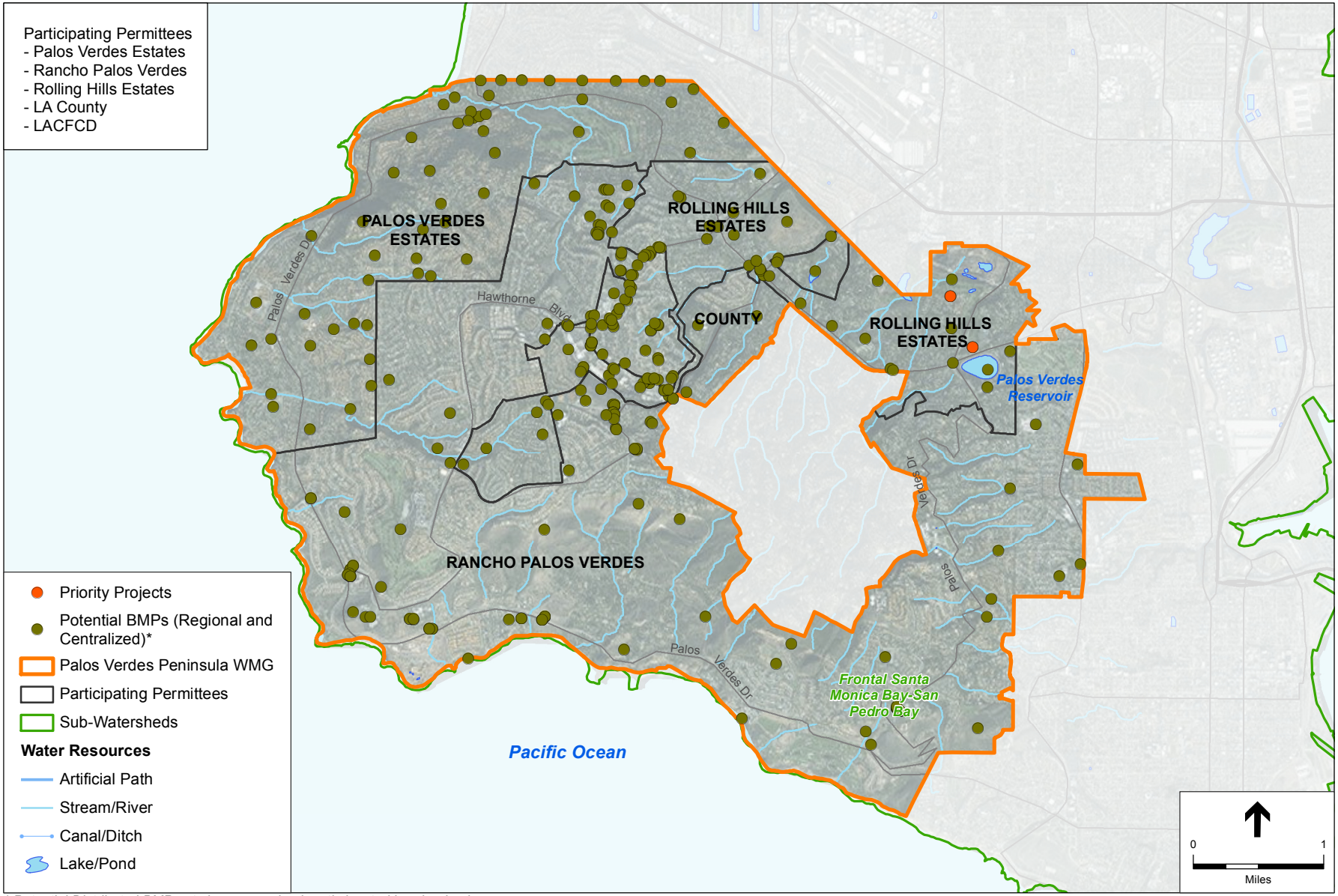
** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: ESRI; National Hydrology Dataset.

LA County PEIR EWMP . 140474

Figure 2-8

Santa Monica Bay Watershed Jurisdictions 2 and 3 Watershed Management Groups



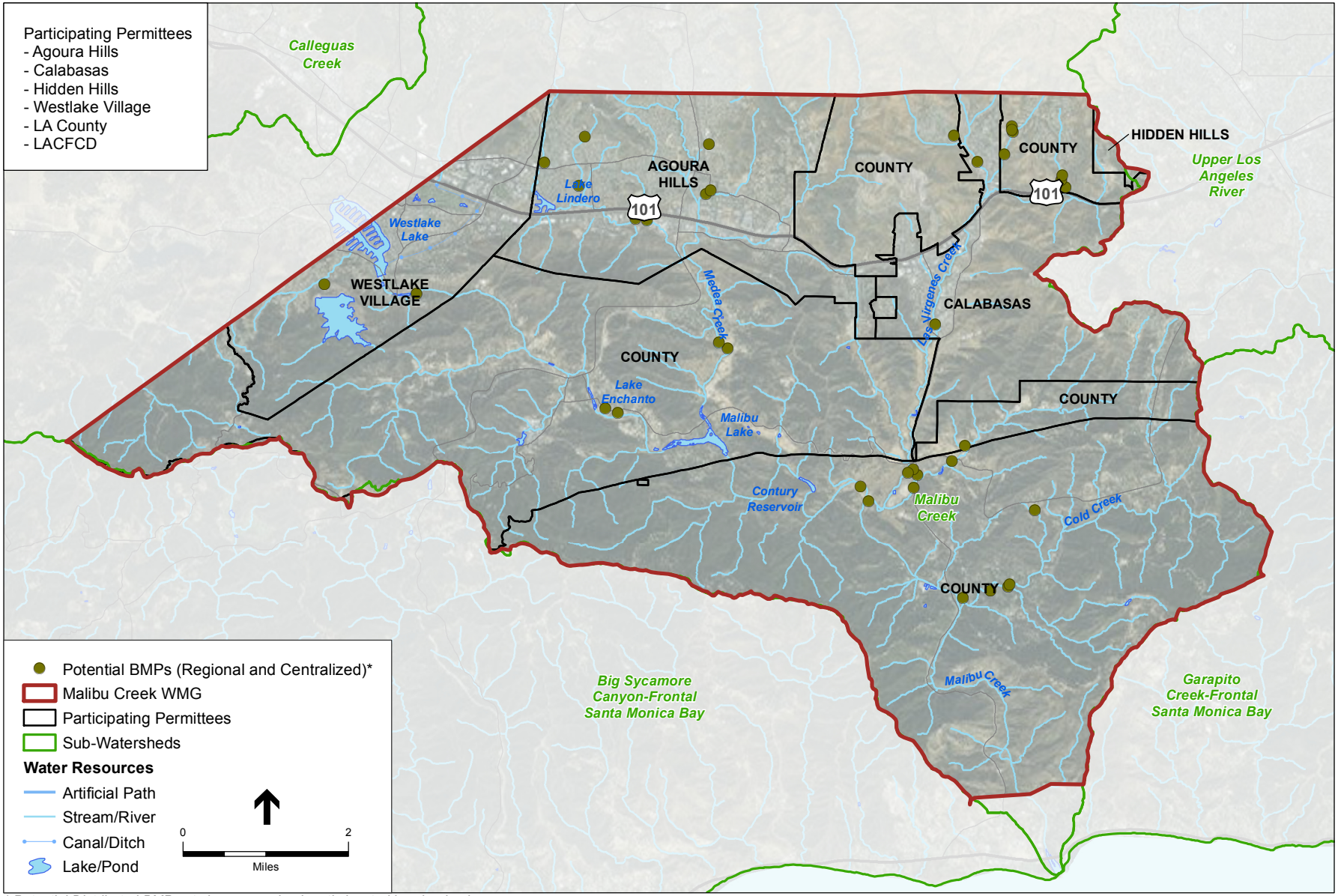
** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: ESRI; National Hydrology Dataset.

LA County PEIR EWMP . 140474

Figure 2-9

Palos Verdes Peninsula
Watershed Management Group

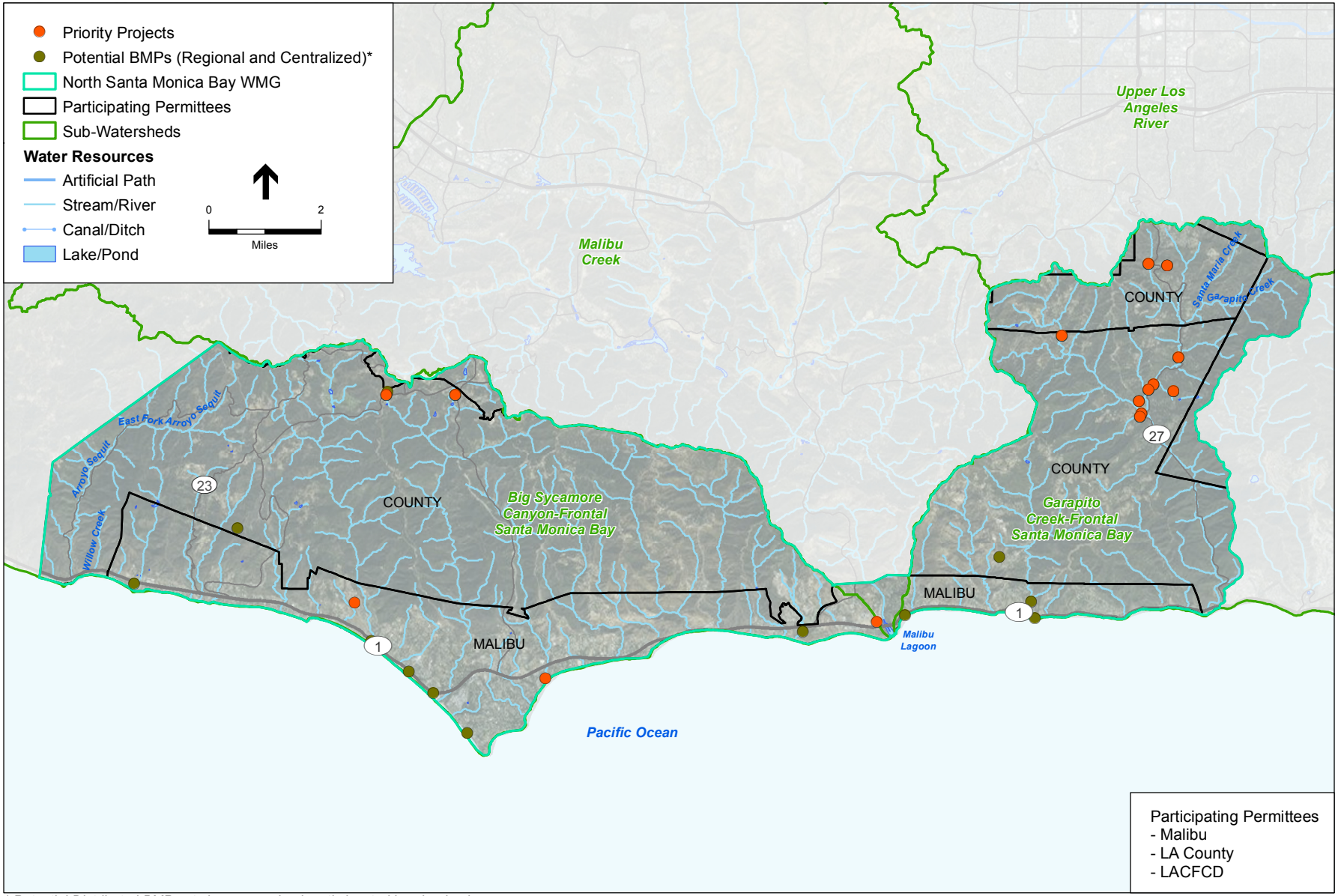


** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: ESRI; National Hydrology Dataset.

LA County PEIR EWMP . 140474

Figure 2-10
Malibu Creek
Watershed Management Group



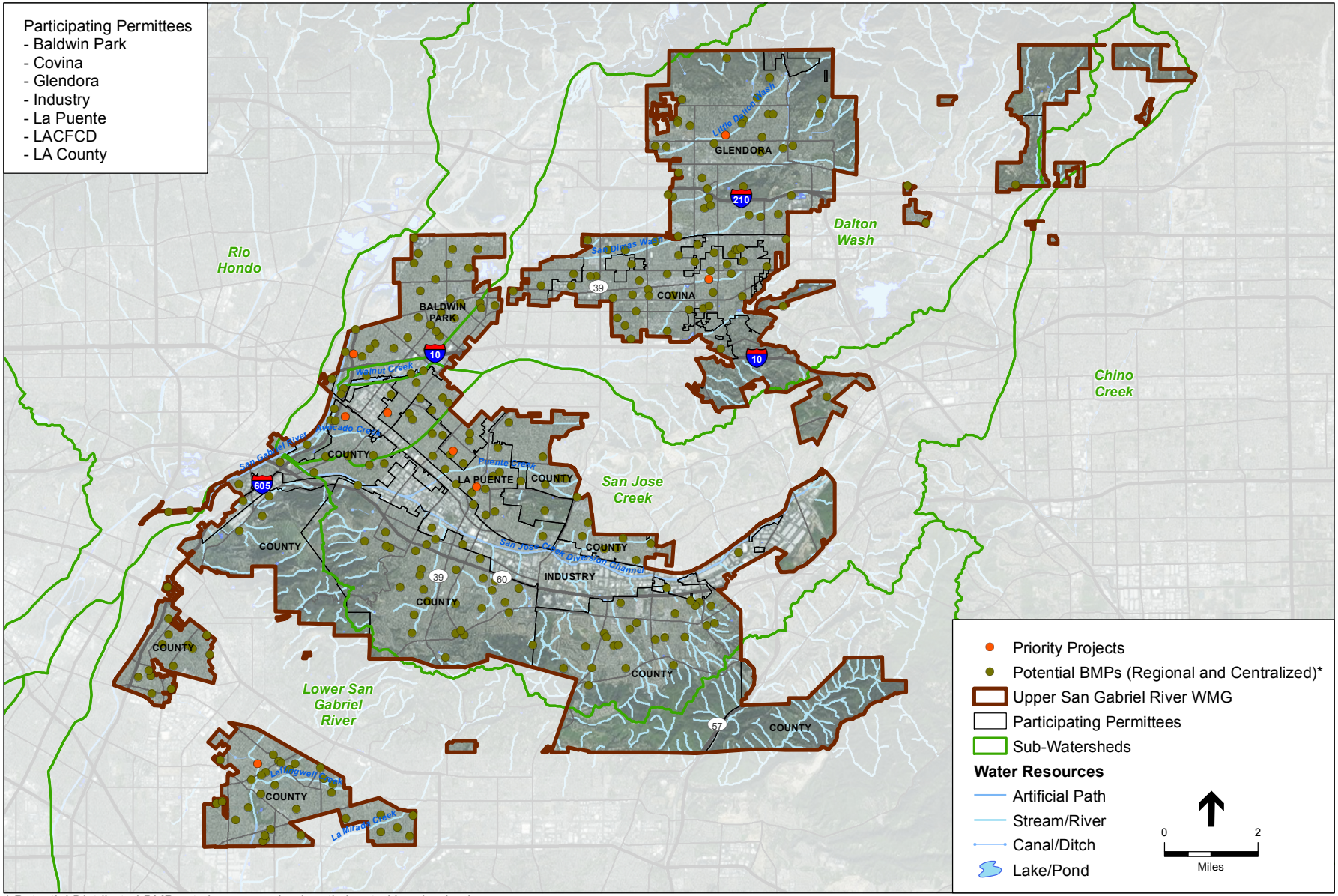
** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: ESRI; National Hydrology Dataset.

LA County PEIR EWMP . 140474

Figure 2-11

North Santa Monica Bay Coastal Watersheds



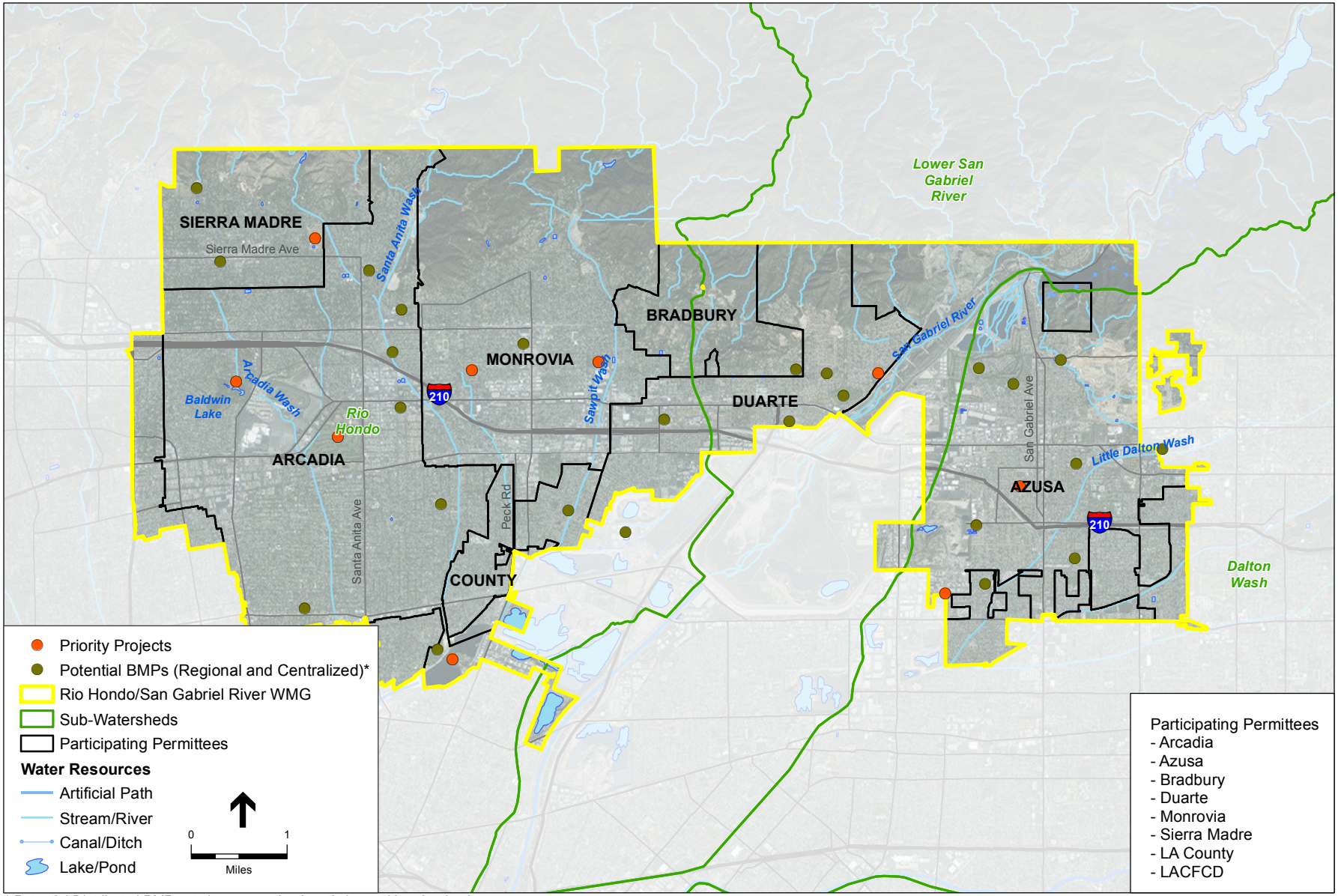
** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: ESRI; National Hydrology Dataset.

LA County PEIR EWMP . 140474

Figure 2-12

Upper San Gabriel River
Watershed Management Groups



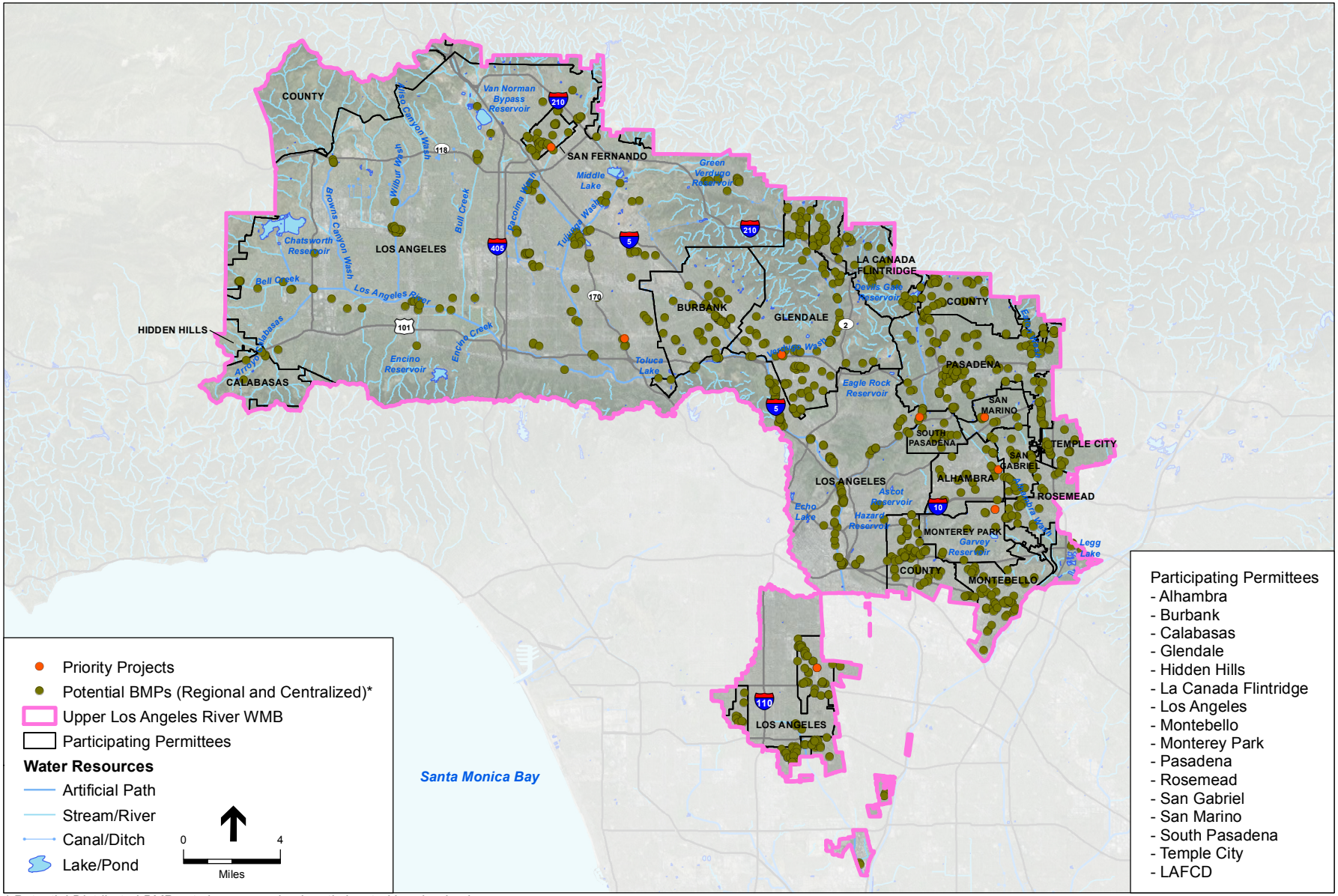
** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: ESRI; National Hydrology Dataset.

LA County PEIR EWMP . 140474

Figure 2-13

Rio Hondo / San Gabriel River Watershed Management Group



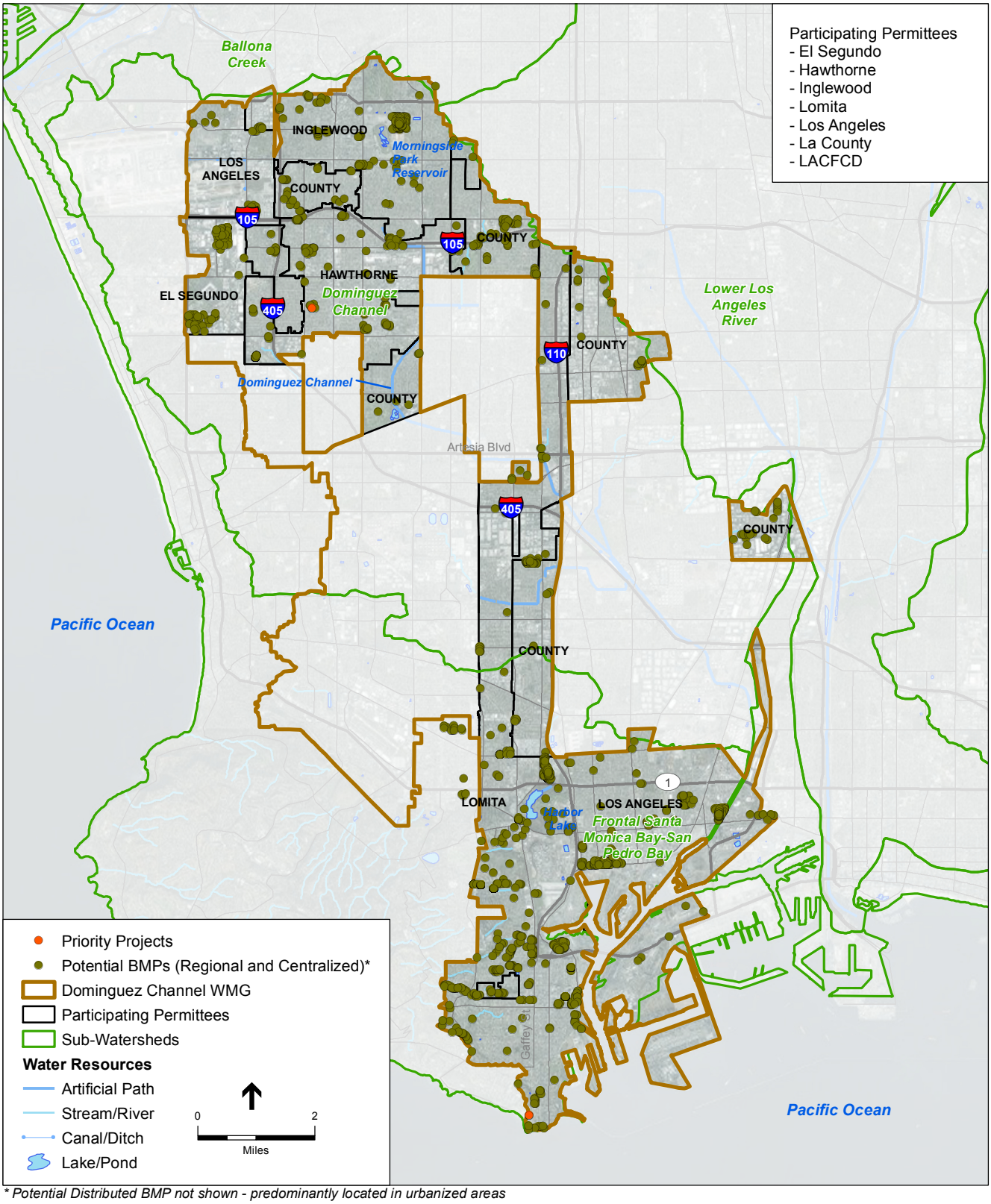
** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: ESRI; National Hydrology Dataset.

LA County PEIR EWMP . 140474

Figure 2-14

Upper Los Angeles River
Watershed Management Group



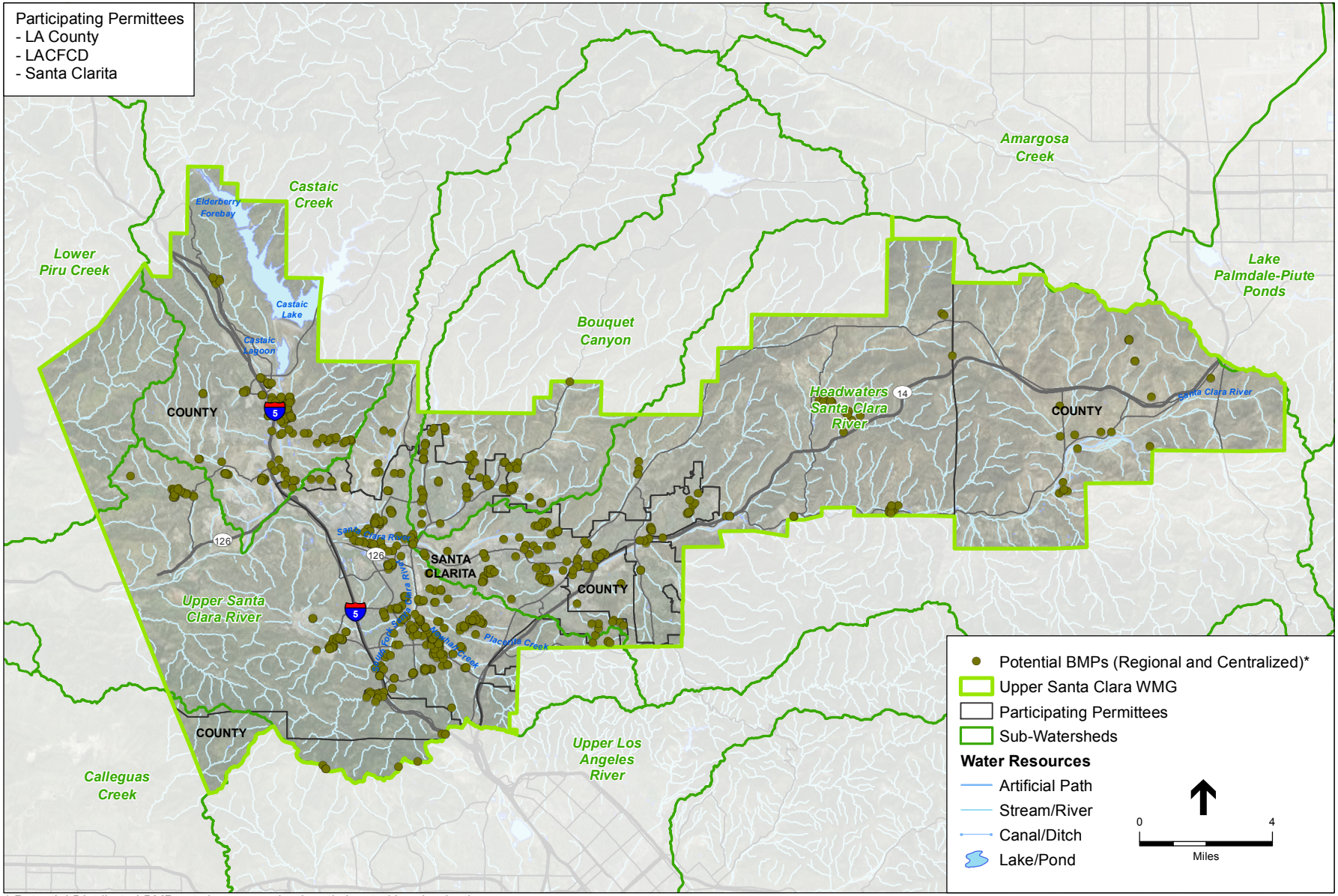
** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: ESRI; National Hydrology Dataset.

LA County PEIR EWMP . 140474

Figure 2-15

Dominguez Channel Watershed Management Group



** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: ESRI; National Hydrology Dataset.

LA County PEIR EWMP . 140474

Figure 2-16

Upper Santa Clara River Watershed
Watershed Management Group

2.6 EWMP BMP Implementation Schedule

The EWMPs that are being prepared in parallel to the PEIR will provide a timeline for the implementation of the BMPs. The priority BMPs are a subset of the potential BMPs that have undergone a site review and project evaluation and have been identified as a priority project, based on available data at the time of publication of this PEIR. The EWMPs will be submitted to the LARWQCB in June 2015. Implementation of priority BMPs will begin following approval of the EWMPs by the LARWQCB, which is anticipated in the later part of 2015 or early 2016. Implementation of BMPs will depend on the approval of the EWMPs, further environmental assessment, permitting, and availability of funding sources. The RAA as part of the EWMPs provides a basis for the needed level of BMP implementation to meet water quality goals.

2.7 Operation and Maintenance

Once constructed, structural BMPs will require periodic maintenance. The level and frequency of operation and maintenance (O&M) will depend on the BMP type, size, and complexity. BMPs implemented and under the jurisdiction of the LACFCD would be maintained and operated to meet design performance standards and the efficiencies needed to meet the waste load reductions in accordance with the EWMPs. O&M will also include addressing identified minimum mitigation measures to avoid potential impacts.

Project Costs

Funding for installation and maintenance of the BMPs identified in each EWMP will be the responsibility of the implementing agencies. The EWMPs will include development of cost estimates for proposed watershed control measures. Financial strategies to implement the EWMP will also be developed and included in the EWMP Plan. The financial strategies may include available State grants, recent Water Bond funding, and partners that can benefit from these projects (e.g. Water agencies).

Each EWMP will define priority projects, and installation of these projects will move forward depending on the availability of funding and outcome of further project-specific CEQA review. Funding options for implementing agencies would include obtaining grant funds, low-interest loans, tax-based general funds, or special assessments. Each jurisdiction will be responsible for securing the necessary funds over time to achieve permit compliance.

2.8 Required Approvals

LACFCD intends to use this PEIR to consider implementation of the proposed program. As Lead Agency, LACFCD may use this PEIR to approve the proposed program, make Findings regarding identified impacts, and, if necessary, adopt a Statement of Overriding Considerations regarding these impacts. The LARWQCB has discretionary approval over the EWMPs themselves, while a broad range of responsible agencies have discretionary approval over the BMPs described in the EWMPs. These agencies and their approvals are described in **Table 2-**. The specific approvals

necessary for each BMP will vary by BMP; for example, BMPs that do not result in fill of jurisdictional waters of the United States will not need a Clean Water Act Section 404 Permit.

TABLE 2-6
REQUIRED APPROVALS

Approving Agency	Approval
Implementing Agencies	CEQA approval
LA County Flood Control District	CEQA approval, Encroachment Permit
California Department of Transportation	Encroachment Permit
Local Railroad Authorities	Encroachment Permit
Local Cities/Permittees	Encroachment Permits, certification of compliance with local historic/cultural preservation policies
U.S. Army Corps of Engineers	Clean Water Act Section 404 Permit, Rivers and Harbors Act Sections 9 and 10 Permits
California Department of Fish and Wildlife	Lake/Streambed Alteration Agreement (1600 Permit)
U.S. Fish and Wildlife Service and National Marine Fisheries Service	Endangered Species Act consultations for Clean Water Act and Rivers and Harbors Act permits
California Coastal Commission	Coastal Development Permits
Regional Water Quality Control Board	Clean Water Act Section 401 Water Quality Certification
	Waste Discharge Requirements for discharge to waters of the state or to land
	Groundwater Anti-Degradation Analysis
	Water Recycling Requirements
	NPDES permits for discharges to waters of the United States
	Groundwater Recharge Recycled Water Project approval (currently draft regulations)
	General Construction Permit/SWPPP approval

CHAPTER 3
Environmental Setting, Impacts, and Mitigation Measures

3.1 Aesthetic Resources

This section addresses the aesthetic and visual quality of the region and potential impacts associated with the implementation of the Enhanced Watershed Management Program (EWMP). It includes a description of existing visual conditions and an evaluation of potential effects on aesthetic resources.

3.1.1 Environmental Setting

Regional Setting

Visual resources consist of natural landscapes and scenic views, including landforms, vegetation, and water features, as well as unique elements of the built environment. The proposed program would be located in various watershed areas in the County of Los Angeles (County). Although much of the County is densely populated, the region also has a significant amount of scenic resources, from the coastline to the mountain vistas, including hillsides, scenic viewsheds, and ridgelines. The San Gabriel Mountains, Sierra Pelona Mountains, Verduga Hills, Santa Susana Mountains, Simi Hills, Santa Monica Mountains, and Puente Hills help shape the region physically, and also provide aesthetic, environmental, and recreational benefits to residents. The majority of native plants and animals reside in the hillside terrain, which indicates the biological and aesthetic importance of these areas (Los Angeles County Draft General Plan, 2014). Ridgelines or mountain edges with steep drops on either side, located in the Los Angeles region provide dramatic views and are protected and preserved by individual communities. Significant ridgelines are dispersed throughout the County, but are generally located in the Angeles National Forest and the Santa Monica Mountains. The urban landscape varies, and includes low-lying residential, industrial, and commercial buildings along with high-density, high-rise residential and commercial buildings in downtown areas.

Program Area

Each Watershed Management Area, and EWMP group, associated with the proposed program has its own unique aesthetic resources depending on its location within the County. For example, the coastal watersheds will have significantly different aesthetic resources than the inland watersheds near the mountains. Specific locations of projects have not been established at this point; therefore, the discussion remains at a broader watershed-area level. Existing aesthetic resources within each Watershed Management Area group are summarized in this section.

Santa Monica Bay Watershed Management Area

The Santa Monica Bay Watershed Management Area includes the Malibu Creek Watershed EWMP, North Santa Monica Bay EWMP, Santa Monica Bay Jurisdictions 2 and 3 EWMP, Marina del Rey EWMP, Ballona Creek EWMP, and a portion of Beach Cities EWMP and Palos Verdes Peninsula EWMP groups.

The Santa Monica Bay Watershed Management Area, which encompasses an area of 414 square miles, is quite diverse. Its borders reach from the crest of the Santa Monica Mountains on the north and from the Ventura–Los Angeles County line to downtown Los Angeles. From there it extends south and west across the Los Angeles plain to include the area east of Ballona Creek and north of the Baldwin Hills. The Santa Monica Bay Watershed Management Area includes several watersheds, the two largest being Malibu Creek to the north and Ballona Creek to the south. The Malibu Creek area contains mostly undeveloped mountain areas, large-acreage residential properties, and many natural streams, while Ballona Creek is predominantly channelized and highly developed with both residential and commercial properties (LARWQCB, 2011).

There are large industrial centers in El Segundo, Manhattan Beach, Redondo Beach, and Torrance, which serve as a base for aerospace and other high-tech manufacturing. Other concentrated commercial/industrial areas in the watershed include Westchester–Los Angeles Airport (LAX)–Playa del Rey (commercial), Santa Monica–West Los Angeles–Century City (commercial and light industry), Culver City (entertainment industry), Los Angeles Civic Center, and the Highway 101 corridor in Thousand Oaks–Westlake Village (light industry and commercial) (LARWQCB, 2011).

Of the Santa Monica Bay's 414-square-mile watershed, 121 square miles (29 percent) are developed or impervious. The Ballona Creek subwatershed accounts for most of the impervious area, with 72 square miles of impervious surface. The Malibu Creek watershed, with its large expanse of open area, has nearly 14 square miles of impervious surface (LARWQCB, 2011).

The Ballona Creek Wetlands are currently located within the area identified as the Ballona Wetlands Ecological Reserve, which is located at the mouth of Ballona Creek. The Ballona Creek Wetlands encompass approximately 600 acres and is the last remaining major coastal wetland in the Santa Monica Bay. The Ballona Creek Wetlands comprise salt marsh and freshwater wetlands, coastal bluffs, dunes, and upland habitats. The Ballona Creek Wetlands supports several state- and federally-listed species of concern. Developed urban areas surrounding the wetlands, as well as many other human activities, have significantly impacted the wetlands (USEPA, 2012).

Riparian habitat exists along each natural watercourse flowing to the ocean and around the lakes of the watershed. Riparian corridors include those found throughout the Ballona Creek Wetlands, Malibu Creek watershed, in other Santa Monica Mountain watersheds such as Arroyo Sequit and Solstice Creek, and adjacent to lakes such as Westlake Lake, Lake Sherwood, and Malibu Lake. The land in the Santa Monica Mountains to the north by contrast is still mostly open space and remains in a somewhat natural state, mostly free of alteration or development but impacted by

invasive species and mostly bacteria- and nutrient-related water quality issues (LARWQCB, 2011).

There are approximately 22 "scenic resources" in the City of Malibu and surrounding areas identified in the Malibu Local Coastal Program. There are numerous vista points in the Malibu area. There are five areas in and adjacent to Malibu that display characteristics which make them suitable as vista points. Significant ridgelines also constitute a scenic resource of the coastal zone because of their high visibility from many vantage points. Ridgelines are typically defined as the line separating drainage basins. Significant ridgelines are those whose ridges silhouette the sky or the ocean, and are clearly visible from scenic roads. These ridgelines are located throughout Malibu and the Santa Monica Mountains (City of Malibu, 1995).

Agoura Hills is known as the "Gateway to the Santa Monica Mountains National Recreation Area." The hills of the Santa Monica Mountains provide panoramic vistas, majestic oak trees, and dramatic backdrops of picturesque canyons and hillsides. Four road segments are valuable scenic resources in Agoura Hills that provide scenic views of the Santa Monica Mountains. Important scenic resources include Strawberry Hill, Morrison Ranch Hills, Palo Comado Hills, and the higher more distant Simi Hills that border the city on the north (City of Agoura Hills, 2010).

Dominguez Channel Watershed Management Area

The Dominguez Channel Watershed Management Area includes the Dominguez Channel EWMP group and a portion of the Beach Cities EWMP and Palos Verdes Peninsula EWMP groups.

Approximately 81 percent of the watershed or 93 percent of the land is developed. Residential development covers nearly 40 percent of the watershed, and another 41 percent comprises industrial, commercial, and transportation uses. It is estimated that 62 percent of the land is covered with impervious surfaces (e.g., asphalt, concrete), which represents the highest percentage for any watershed area in Los Angeles County. Parkland and open space are in short supply and generally are deficient in meeting the goal ratio of 0.4 hectare (1 acre) of park per each 1,000 population. Vacant land and open space areas account for 16 percent of the entire watershed. The largest "natural" habitat is associated with the Los Angeles and Long Beach Harbors, which cover 3,289 hectares (8,128 acres), or approximately 9.5 percent of the watershed. The Dominguez Watershed has an extensive transportation system consisting of streets, major highways, and freeways; rail service; three airports; and commercial shipping (Los Angeles County, 2004).

The cities with the largest amount of land in the watershed are Los Angeles (22 percent), Carson (14 percent), and Torrance (13 percent). These communities are dominated by high density and multi-family residential land use types, with a fair amount of active redevelopment. The watershed is also home to several smaller, upscale communities, including Palos Verdes Estates, Rancho Palos Verdes, Rolling Hills, and Rolling Hills Estates, which are characterized by low density residential and equestrian land uses (Los Angeles County, 2004).

Approximately 50.6 square kilometers (19.5 square miles) of the Dominguez watershed, including Lomita and portions of Rolling Hills, Rolling Hills Estates, Torrance, and the City of

Los Angeles, drains to Machado Lake near the intersection of Vermont Avenue and Anaheim Street in the City of Los Angeles. Much of the Machado Lake subwatershed consists of the hilly regions of Rolling Hills and Rolling Hills Estates. This portion of the watershed is unique for Dominguez by consisting of relatively steep hills with drainage ways in canyons. These drainage ways flow generally northwest from the hills toward Machado Lake (Los Angeles County, 2004). Machado Lake (16 hectares, 40 acres) and the Machado Lake wetlands (25 hectares, 64 acres) are located within the Ken Malloy Harbor Regional Park, in the southeastern corner of the Machado Lake subwatershed. Both Machado Lake and the Machado Lake wetlands serve as flood retention basins for the Machado Lake subwatershed. Machado Lake receives urban and stormwater runoff from a complex network of storm drain systems. Machado Lake discharges at the southern end by overflowing a concrete dam into the Machado Lake wetlands. Water discharges from the wetland through the Harbor Outflow structure and into the West Basin of the Los Angeles Harbor (Los Angeles County, 2004).

Several types of habitats occur within the Dominguez watershed; the largest is urban land that supports few natural resources. To a lesser extent, biological resources use several small, disturbed pocket wetlands scattered throughout the watershed and retention and detention basins located in the City of Torrance. These biological resources within the Dominguez watershed are highly fragmented and are impacted by a variety of problems directly related to the surrounding urban environment. Several stresses also affect habitats within the Dominguez Channel. The most notable impact to biological resources is the channelization of drainages throughout the system, many of which are concrete-lined (Los Angeles County, 2004).

Los Angeles River Watershed Management Area

The Los Angeles River Watershed Management Area includes the Upper Los Angeles River EWMP and a portion of the Rio Hondo/San Gabriel River Quality Group EWMP.

The Los Angeles River Watershed is one of the largest in the region. It is also one of the most diverse in terms of land use patterns. Approximately 324 square miles of the watershed are covered by forest or open space land, including the area near the headwaters that originate in the Santa Monica, Santa Susana, and San Gabriel Mountains. The rest of the watershed is highly developed (LARWQCB, 2006).

The river flows through the San Fernando Valley past heavily developed residential and commercial areas. From the Arroyo Seco, north of downtown Los Angeles, to the confluence with the Rio Hondo, the river flows through industrial and commercial areas and is bordered by rail yards, freeways, and major commercial and government buildings. From the Rio Hondo to the Pacific Ocean, the river flows through industrial, residential, and commercial areas, including major refineries and petroleum products storage facilities, major freeways, rail lines, and rail yards serving the Ports of Los Angeles and Long Beach (LARWQCB, 2006).

Also in various parks in the watershed are a number of lakes, including Peck Road Park, Belvedere Park, Hollenbeck Park, Lincoln Park, and Echo Park Lakes as well as Lake Calabasas. These lakes are heavily used for recreational purposes (LARWQCB, 2006).

San Gabriel River Watershed Management Area

The San Gabriel River Watershed Management Area includes a portion of the Rio Hondo/San Gabriel River Quality Group EWMP and the Upper San Gabriel River EWMP.

The entire San Gabriel River watershed covers more than 640 square miles and includes portions of 37 cities in Los Angeles and Orange Counties, as well as communities in unincorporated Los Angeles County. More than one-third of the upper watershed falls within the Angeles National Forest, including significant portions of the San Gabriel Mountains. The watershed also contains the Merced and San Jose Hills, and the Puente-Chino Hills, as well as the major urban populations of the San Gabriel and Pomona Valleys and the coastal plain of the Los Angeles Basin (Los Angeles County, 2006).

About 26 percent of the watershed's total area is developed with urban and related land uses. The San Gabriel River consists of 22 creeks, washes, and streams, including four major tributaries or subwatersheds, which join to form the overall watershed (Los Angeles County, 2006).

The river environment changes dramatically during the 58-mile course. The river is divided into seven reaches; each reach is defined by distinct landscape, cultural, geological, and hydrological features, which naturally change as the river flows from the mountains through the valley, into the coastal plain, and eventually out to sea (Los Angeles County, 2006).

Santa Clara River Watershed Management Area

The Santa Clara River Watershed Management Area includes the Upper Santa Clara River EMWP.

The Santa Clara River watershed encompasses approximately 1,030 square miles. The Upper Santa Clara River Watershed is approximately 786 square miles within County of Los Angeles limits with approximately 243 square miles within Ventura County and 1 square mile within Kern County. The Santa Clara River Watershed Management Area is dominated by vacant land, which comprises 88 percent of the total land use. Much of the watershed is in mountainous terrain within either the Angeles or Los Padres National Forests (LARWQCB, 2006). Only small portions of agriculture (4 percent) and urban land (6 percent) exist. Much of the residential area (3 percent) is located near the City of Santa Clarita in the center of the watershed. The Santa Clara River Watershed Management Area is the least developed and urbanized of the watershed management areas in Los Angeles County (Weston, 2005).

The Santa Clara River watershed's impervious area is estimated to be 7 percent based on assumptions on impervious areas in each land use type. This is the lowest ratio of impervious land area in the Watershed Management Areas of Los Angeles County (Weston, 2005). The Santa Clara River is the largest river system in Southern California remaining in a relatively natural state (LARWQCB, 2006). Extensive patches of high-quality riparian habitat are present along the length of the river and its tributaries (LARWQCB, 2006).

One of the largest of the Santa Clara River's tributaries, Sespe Creek, is designated a wild trout stream by the State of California and supports significant spawning and rearing habitat. The Sespe Creek is also designated a wild and scenic river (LARWQCB, 2006).

State Scenic Highways

There are several Designated State Scenic Highways, Eligible State Scenic Highways, and Historic Parkways with the EWMP areas. Refer to **Figure 3.1-1**, Scenic Highways. Santa Monica Bay, Los Angeles River, and San Gabriel River watersheds contain both officially designated County scenic highways and Eligible State Scenic Highways not officially designated (State Route 1 and Highway 101) (see Figure 4.1-1). In addition, the Los Angeles River watershed also includes historic parkways and the Santa Clara River watershed includes Eligible State Scenic Highways. Many roads in Malibu are considered scenic, but only the Pacific Coast Highway has been officially designated as an eligible scenic highway by the California Department of Transportation (Caltrans) (City of Malibu, 1996).

Light and Glare

There are two types of light intrusion: the first source emanates from the interior of structures and passes through windows, while the second type emanates from exterior sources such as parking lot lighting and street lamp lighting. Glare is the result of sunlight or an artificial light source being reflected on a flat surface or reflective exterior coatings. Light and glare can disturb wildlife in natural habitat areas and act as a nuisance to adjacent residential areas and motorists.

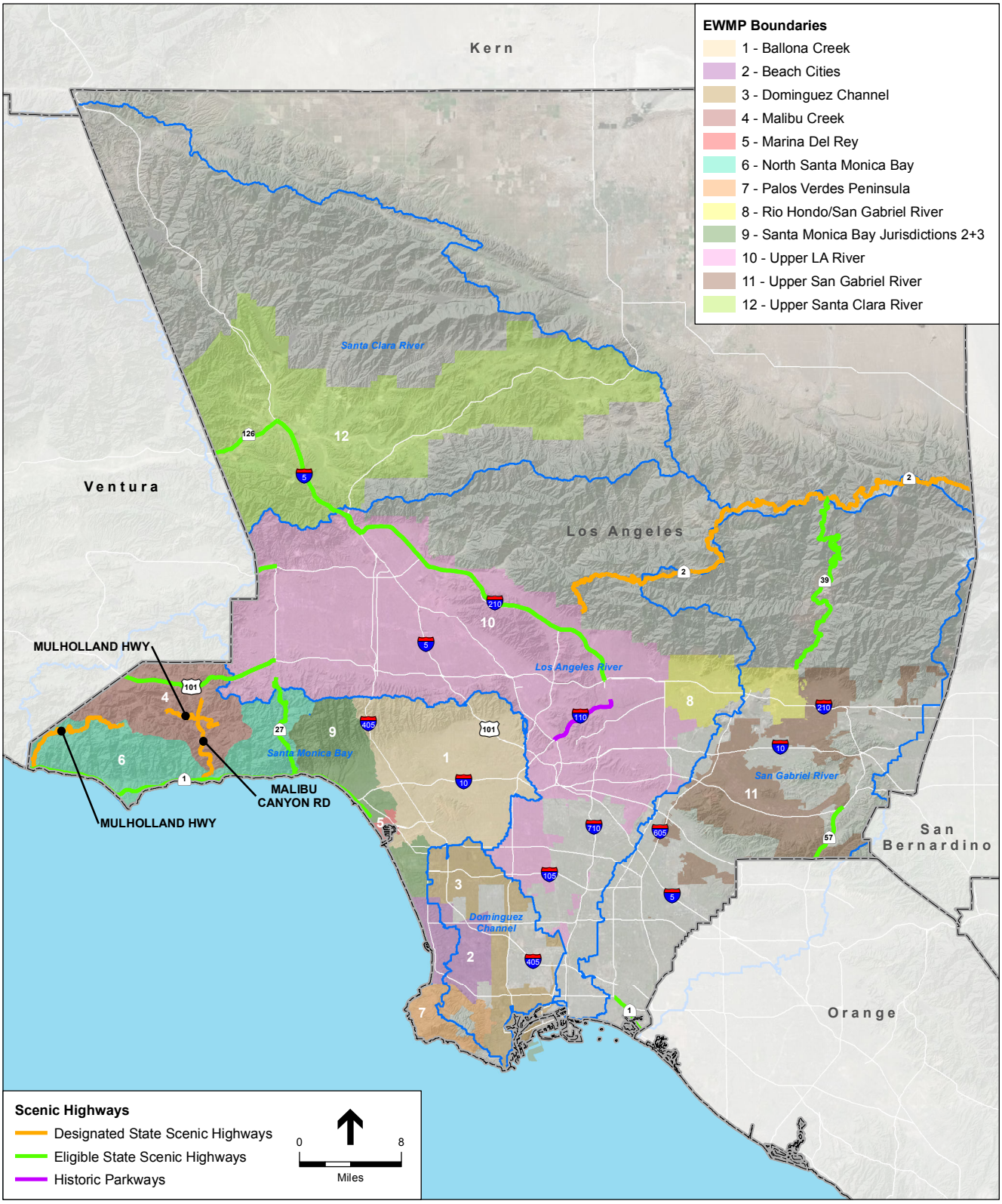
Light and glare are typical features of urbanized settings, such as the EWMP project areas. The primary sources of light within the project areas are associated with transportation, including car headlights associated with vehicular traffic and commercial and residential land uses.

3.1.2 Regulatory Setting

State

State Scenic Highway Program

In 1963, the California legislature created the Scenic Highway Program to protect scenic highway corridors from changes that would diminish the aesthetic value of lands adjacent to the highways. The state regulations and guidelines governing the Scenic Highway Program are found in the Streets and Highways Code, Section 260 et seq. A highway is designated under this program when a local jurisdiction adopts a scenic corridor protection program, applies to Caltrans for scenic highway approval, and receives notification from Caltrans that the highway has been designated as a Scenic Highway. When a city or county nominates an eligible scenic highway for official designation, it defines the scenic corridor, which is land generally adjacent to and visible to a motorist on the highway.



SOURCE: ESRI; Los Angeles County GIS, 2014.

LA County PEIR EWMP . 140474

Figure 3.1-1

Scenic Highways

Local

Los Angeles County Existing General Plan, Adopted 1980

The following policy from the Conservation and Open Space Element of the Existing General Plan is relevant to the proposed program:

Policy C/OS 16: Protect the visual quality of scenic areas including ridge-lines and scenic views from public roads, trails and key vantage points.

Los Angeles County 2014 Draft General Plan 2035

The following policies from the Conservation and Natural Resources Element of the Draft General Plan are relevant to the proposed program:

Goal C/NR 13: Protected visual and scenic resources

Policy C/NR 13.1: Protect scenic resources through land use regulations that mitigate development impacts.

Policy C/NR 13.2: Protect ridgelines from incompatible development that diminishes their scenic value.

Policy C/NR 13.3: Reduce light trespass, light pollution and other threats to scenic resources.

City Land Use Regulations and Ordinances

Local regulations and ordinances vary widely in the EWMP project areas. Aesthetic-related policies included in General Plans typically concern protecting valuable scenic resources. Some local jurisdictions incorporate restrictions to their General Plans that pertain to protection of scenic resources and trees in their jurisdictional areas.

3.1.3 Impact Assessment

Thresholds of Significance

For the purposes of this Project Environmental Impact Report (PEIR) and consistency with Appendix G of the CEQA Guidelines, the project would have a significant impact on aesthetic resources if it would:

- Create a substantial adverse effect on a scenic vista.
- Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
- Substantially degrade the existing visual character or quality of the site and its surroundings.
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Program Impact Discussion

Scenic Vistas

Impact 3.1-1: The proposed program could create a substantial adverse effect on a scenic vista.

Structural (Regional, Centralized, and Distributed) BMPs

A scenic vista can be described as an expansive view of a highly valued landscape for the benefit of the general public. There are portions of the EWMP project areas that could be characterized as having scenic vistas, including undeveloped hillsides, ridgelines, and open space areas that provide a unifying visual backdrop to the urban environment of the Los Angeles Basin. Impacts to scenic vistas can occur when the visible scenic landscape itself is altered or when a new contrasting object is introduced that blocks or obstructs a scenic vista from a particular public vantage point.

The construction of structural Best Management Practices (BMPs) for the proposed program would require temporary ground disturbance, primarily on existing sidewalks, streets, parks, and city-owned lands. The presence of construction equipment and materials would be visible from public vantage points but would not affect any scenic views or vistas for longer than the temporary construction periods. Construction of aboveground structures, such as pump stations, would involve excavation, pump station construction, pump and motor installation, and final site completion. Similar to structural BMPs construction, site disturbance and the presence of construction equipment and materials during construction of pump stations could temporarily introduce contrasting elements into scenic views and vistas. However, given the predominantly urban character of potential pump station sites and the temporary nature of construction, impacts would be considered less than significant.

It is anticipated that the majority of structural BMPs would be located underground and not visible once construction is complete. Therefore, construction and operation of the majority of structural BMP improvements would not permanently affect views or scenic vistas. Although the exact locations of pump stations have not been determined, based on their proposed function and exterior design, they would not significantly affect views or scenic vistas from publically accessible vantage points. Aboveground structures such as pump station components of projects associated with structural BMPs typically would be single-story buildings; the project areas where pump stations may be located are generally characterized by urban development. As such, aboveground structures would be designed to be similar to and compatible with surrounding architecture and neighborhood character. However, impacts to scenic vistas from individual projects could be significant if inappropriately designed or located. With implementation of **Mitigation Measure AES-1**, aboveground structures would be designed to avoid obstructing scenic vistas or views from public vantage points. Impacts would be less than significant with mitigation.

Mitigation Measure:

AES-1: Aboveground structures shall be designed to be consistent with local zoning codes and applicable design guidelines and to minimize features that contrast with neighboring development.

Significance Determination: Less than significant with mitigation. (The application of these mitigation measures to specific BMP types and categories are identified in Table 3.1-1.)

Non-Structural (Institutional) BMPs

Non-structural BMPs consist of policies, actions, and activities aimed at preventing pollutants from entering stormwater runoff; there would not be a physical impact to the environment. The non-structural BMPs associated with the proposed program would not create a substantial adverse effect on a scenic vista.

Mitigation Measures: None

Significance Determination: No impact

State Scenic Highway

Impact 3.1-2: The proposed program could substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

Structural (Regional, Centralized, and Distributed) BMPs

State scenic highways within the EWMP areas include portions of State Route 1 or Pacific Coast Highway, State Route 101, State Route 27, State Route 57, State Route 39, State Route 2, State Route 126, and portions of Interstate 5, Interstate 110, and Interstate 210, as shown in Figure 3.1-1. In addition, there are designated scenic roadways, including Mulholland Highway and Malibu Canyon Roadway. Some of the proposed program could be visible from any of these designated scenic highways or other locally designated scenic roadways. The proposed program would not likely involve damage to rock outcroppings or historic buildings because it is anticipated that the majority of structural BMPs would be located underground and would not be visible once construction is complete. Construction of the proposed program would involve the removal of vegetation, including possibly the removal of native and non-native trees from the individual project sites. Aboveground structures may be constructed as part of the structural BMPs. Small aboveground pump stations and supporting ancillary facilities would not substantially damage scenic resources of the area. Larger structures, such as single-story housing for pump stations and treatment facilities, would be compatible with existing visual character with implementation of **Mitigation Measure AES-1**. Therefore, construction and operation of the majority of structural BMPs would not permanently affect scenic resources within a state scenic highway with implementation of **Mitigation Measure AES-1**.

Mitigation Measure: Implementation of **Mitigation Measure AES-1**

Significance Determination: Less than significant with mitigation. (The application of these mitigation measures to specific BMP types and categories are identified in Table 3.1-1.)

Non-Structural (Institutional) BMPs

Non-structural BMPs consist of policies, actions, and activities aimed at preventing pollutants from entering stormwater runoff; there would not be a physical impact to the environment. The non-structural BMPs associated with the proposed program would not substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway.

Mitigation Measures: None

Significance Determination: No impact

Visual Character

Impact 3.1-3: The proposed program could substantially degrade the existing visual character or quality of the site and its surroundings.

Structural (Regional, Centralized, and Distributed) BMPs

Construction activities associated with all structural BMP projects would require the use of construction equipment and storage of materials on-site, thus introducing contrasting features into the visual landscape that would affect the visual quality of project sites and/or their surroundings. Contrasting features would include demolition materials, excavated areas, stockpiled soils, and other materials generated and stored on-site during construction. However, adverse effects to visual character associated with project construction would be temporary and are considered less than significant.

The purpose of the EWMPs is to improve upon the Permittee's structural BMPs and it includes the following elements, or BMPs: replacing existing impervious surfaces with pervious surfaces such as bioinfiltration cells, bioswales, porous pavement, and filter strips. Centralized BMPs also include diversion- and treatment-type BMPs that use similar technologies for these types of BMPs under distributed BMPs, but they can be implemented on a much larger scale for collecting, diverting, and treating urban runoff (dry weather flows) or limited stormwater flows from multiple parcels and large drainage areas. Therefore, centralized structural BMPs require greater footprints for construction and implementation. Centralized BMPs include two unique BMP types, treatment wetlands and stream/creek restoration projects. Unlike the other structural BMP types described, these BMPs use natural systems to filter and clean the water. Treatment wetlands are typically off-line treatment systems that are not in the receiving waters, but may have habitat benefits through the establishment of more native plants and ecosystems. Creek, river, and estuary restoration projects provide a unique opportunity to restore natural cleansing processes, reestablish habitats, and address impacts from hydromodification and urban runoff.

Once constructed, the proposed EWMP facilities would be located predominantly in urban areas. Underground facilities, such as storm drains, are not expected to have a permanent effect on visual character of an area. Implementation of the structural BMPs is anticipated to have an

overall positive impact on the aesthetic environment. For example, there is anticipated to be more green space areas and less impermeable surfaces from pavement and concrete, thereby enhancing the level of greenness in the watersheds. Greenness includes "green spaces" that have well-defined boundaries that do not contain residential, commercial, or industrial structures or vehicular access or "green areas," which are within the street grid and are landscape design features such as street trees, bioswales, green or vegetated roofs, or other vegetated small areas integrated into the built environment. These BMPs contribute to the natural open space character compared to the more built environment that it is replacing.

Aboveground structures within urban areas would be constructed on or adjacent to existing developed and built-up landscapes. Small aboveground pump stations and supporting ancillary facilities would have no significant effect on the visual character of the area. Larger structures, such as single-story housing for pump stations and treatment facilities, would be compatible with existing visual character with implementation of **Mitigation Measure AES-1**.

BMP maintenance is also important when considering long-term impacts on aesthetics. Poorly maintained BMPs, such as wet ponds or constructed wetlands, may be unsightly as a result of excess algal growth or public littering. Wet ponds and constructed wetlands can also become mosquito-breeding grounds. However, mosquito problems can usually be reduced or eliminated through proper design and/or organic controls such as mosquito-eating fish. Successful design avoids shallow or stagnant water and reduces large areas of periodic drying, which can occur in a dry detention basin. In addition, all BMPs need to have trash and debris removed periodically to prevent odor and preserve aesthetic values. With proper maintenance of all implemented BMPs as required in **Mitigation Measure AES-2**, impacts would be less than significant.

Mitigation Measures: Implementation of **Mitigation Measure AES-1**

AES-2: Implementing agencies shall develop BMP maintenance plans that are approved concurrently with each structural BMP approval. The maintenance plans must include measures to ensure functionality of the structural BMPs for the life of the BMP. These plans may include general maintenance guidelines that apply to a number of smaller distributed BMPs.

Significance Determination: Less than significant with mitigation. (The application of these mitigation measures to specific BMP types and categories are identified in Table 3.1-1.)

Non-Structural (Institutional) BMPs

Non-structural BMPs consist of policies, actions, and activities aimed at preventing pollutants from entering stormwater runoff; there would not be a physical impact to the environment. The non-structural BMPs associated with the proposed program would not degrade the existing visual character or quality of the site and its surroundings.

Mitigation Measures: None

Significance Determination: No Impact

Light and Glare

Impact 3.1-4: The proposed program could create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Structural (Regional, Centralized, and Distributed) BMPs

Security lighting used during the construction of all structural BMP projects, if necessary, may introduce new sources of light and glare to the immediate project areas; however, nighttime construction is not anticipated. If security lighting is needed, it can be shielded and directed away from surrounding light-sensitive land uses, consistent with implementing agency design standards. Temporary impacts associated with light and glare during construction activities would be less than significant.

It is not anticipated that the structural BMP projects would involve the installation of permanent new outdoor lighting for the distributed, centralized, and regional structural watershed control measures. The goal of the BMPs in the EWMP projects is to reduce the impact of stormwater and non-stormwater on receiving water quality. Whether distributed, centralized, or regional, the major structural BMP functions are infiltration, treatment, and storage; these may be used individually or in combination. Distributed BMPs are most likely to be implemented in high-density urban, commercial, industrial, and transportation areas where currently there are no BMPs. These types of BMPs are generally "retrofit"-type projects that replace existing impervious surfaces with pervious surfaces such as bioinfiltration cells, bioswales, porous pavement, and filter strips that tie into existing stormwater management systems as part of the MS4. These projects may also augment the existing MS4 with additional inlet screens, filter media systems, sediment removal systems, and diversions to sanitary sewer lines. In addition, many of the proposed EWMP programs would include underground storm drain facilities. Because these types of BMPs would not require lighting, they would not create a new source of light or glare that would adversely affect day or nighttime views in the area.

Aboveground pump stations and treatment facilities associated with potential structural BMP projects may require new exterior daytime and nighttime lighting for operational and security purposes. If security lighting is needed for these facilities, they would be shielded to avoid glare impacts to local areas, consistent with implementing agency design standards. Operational impacts associated with light and glare would be less than significant.

Mitigation Measures: None required

Significance Determination: Less than significant

Non-Structural (Institutional) BMPs

Non-structural BMPs consist of policies, actions, and activities aimed at preventing pollutants from entering stormwater runoff; there would not be a physical impact to the environment. The non-structural BMPs associated with the proposed program would not create a new source of light or glare which would adversely affect day or nighttime views in the area.

Mitigation Measures: None

Significance Determination: No impact

Cumulative Impact Discussion

Structural (Regional, Centralized, and Distributed) BMPs

Cumulative projects located in the Los Angeles County region would have the potential to result in a cumulative impact to aesthetic resources if in combination they would result in the removal or substantial adverse change of one or more features that contribute to the valued visual character or image of a neighborhood, community, state scenic highway, or localized area, such as a landmark (designated), historic resource, trees, or rock outcropping. Changes in land use are not included in the proposed program and the structural BMPs are generally limited to portions of the EWMP areas that feature existing urban development. The introduction of structural BMPs in these areas would result in minor changes to the community character and visual appearance of the applicable EWMP areas. In addition, many of the structural BMPs are anticipated to result in more open space areas and less pavement and concrete, thereby enhancing the level of greenness in the watersheds. These BMPs contribute to the natural open space character compared to the more built environment that these BMPs are replacing. Overall, implementation of the structural BMPs is anticipated to have a positive impact on the aesthetic environment. Implementation of **Mitigation Measures AES-1** and **AES-2** would minimize cumulative impacts to aesthetic resources.

Mitigation Measures: Implementation of **Mitigation Measure AES-1** and **AES-2**

Significance Determination: Less than significant with mitigation. (The application of these mitigation measures to specific BMP types and categories are identified in Table 3.1-1.)

Non-Structural (Institutional) BMPs

Non-structural BMPs consist of policies, actions, and activities aimed at preventing pollutants from entering stormwater runoff; there would not be physical impact to the environment. Non-structural BMPs would not include any direct impacts to aesthetic resources; therefore, there would be no cumulative impacts to aesthetic resources.

Mitigation Measures: None required

Significance Determination: No impact

3.1.3 Summary of Impact Assessment

Table 3.1-1 shows a summary of the structural BMPs requiring mitigation.

TABLE 3.1-1
SUMMARY OF AESTHETICS IMPACTS REQUIRING MITIGATION MEASURES

	Thresholds of Significance				
Structural BMPs	**Scenic Vistas**	**Scenic Highways**	**Visual Character**	**Light and Glare**	**Cumulative Impacts**
Applicable Mitigation Measures:	**AES-1**	**AES-1**	**AES-1; AES-2**	**None Required**	**AES-1; AES-2**
Regional BMPs					
Regional Retention and Infiltration	Yes	No	Yes	No	Yes
Regional Capture, Detention, and Use	Yes	No	Yes	No	Yes
Centralized BMP					
Biofiltration	Yes	No	Yes	No	Yes
Constructed Wetlands	No	No	Yes	No	Yes
Treatment/Low-Flow Diversions	Yes	No	Yes	No	Yes
Creek, River, Estuary Restoration	No	No	Yes	No	Yes
Distributed BMPs					
Site Scale Detention	Yes	No	Yes	No	Yes
LID – Infiltration/Filtration BMPs – Porous Pavement, Green Streets, Bioswale/Filter Strips, Downspout Disconnects	Yes	No	Yes	No	Yes
LID – Green Infrastructure – Capture and Use – Cisterns, Rain Barrels, Green roofs, Planter Boxes	Yes	No	Yes	No	Yes
Flow-through Treatment BMPs	Yes	No	Yes	No	Yes
Source Control Treatment BMPs (catch basin inserts/screens, hydrodynamic separators, gross solids removal devices)	Yes	No	Yes	No	Yes
Low-Flow Diversions	Yes	Yes	Yes	No	Yes

NOTE: These conclusions are based on typical size and function of BMPs.

3.2 Air Quality

This section of the Program Environmental Impact Report (PEIR) addresses potential air quality impacts associated with implementation of the proposed program. The environmental setting provides a description of the general air quality and meteorological conditions in the South Coast Air Basin (Basin). The regulatory setting provides a description of applicable federal, state, and local regulatory policies. The impact assessment section evaluates the potential for short-term and long-term air quality impacts to result from implementation of the proposed program. Mitigation measures are recommended as necessary to reduce significant air quality impacts.

3.2.1 Environmental Setting

Regional Setting

The proposed program is located in Los Angeles County (County), which covers an area of about 4,083 square miles and comprises 88 cities and approximately 2,650 square miles of unincorporated areas. The majority of the County is highly urbanized and consists of several cities, communities, and unincorporated areas. The proposed program is located in multiple jurisdictions of Los Angeles County, which include the Los Angeles County Flood Control District (LACFCD), County of Los Angeles, and the following 46 cities: Los Angeles, Beverly Hills, Culver City, Inglewood, Santa Monica, West Hollywood, Hawthorne, El Segundo, Lomita, Baldwin Park, Covina, Glendora, Industry, La Puente, Malibu, Calabasas, Agoura Hills, Westlake Village, Hidden Hills, Santa Clarita, Rancho Palos Verdes, Palos Verdes Estates, Rolling Hills Estates, Redondo Beach, Hermosa Beach, Torrance, Manhattan Beach, Arcadia, Azusa, Bradbury, Duarte, Monrovia, Sierra Madre, Alhambra, Burbank, Glendale, Hidden Hills, La Cañada Flintridge, Montebello, Monterey Park, Pasadena, Rosemead, San Gabriel, San Marino, South Pasadena, and Temple City (refer to Figure 1-1). Each of these jurisdictions have independent planning documents that guide the development of urban, agricultural and other land uses within their jurisdictional boundaries.

Climate and Meteorology

The program is located in the portion of Los Angeles County that lies within the Basin. The program area is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The Basin is an approximately 6,600-square-mile coastal plain bounded by the Pacific Ocean to the southwest and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Basin includes the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County.

The ambient concentrations of air pollutants are determined by the amount of emissions released by sources and the atmosphere’s ability to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, atmospheric stability, and sunlight. Therefore, existing air quality conditions in the program area are determined by such natural factors as topography, meteorology, and climate, in addition to the amount of emissions released by existing air pollutant sources.

Atmospheric conditions such as wind speed, wind direction, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants. The topography and climate of Southern California combine to make the Basin an area of high air pollution potential. The Basin is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the west and high mountains around the rest of the perimeter. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes with light average wind speeds. The usually mild climatological pattern is disrupted occasionally by periods of extremely hot weather, winter storms, or Santa Ana winds. During the summer months, a warm air mass frequently descends over the cool, moist marine layer produced by the interaction between the ocean's surface and the lowest layer of the atmosphere. The warm upper layer forms a cap over the cool marine layer and inhibits the pollutants in the marine layer from dispersing upward. In addition, light winds during the summer further limit ventilation. Furthermore, sunlight triggers the photochemical reactions that produce ozone. The region experiences more days of sunlight than any other major urban area in the nation except Phoenix (SCAQMD, 2012).

Criteria Pollutants

The California Air Resources Board (CARB) and the United States Environmental Protection Agency (USEPA) currently focus on the following air pollutants as indicators of ambient air quality: ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), respirable or breathable particulate matter with an aerodynamic diameter of 10 micrometers or less (PM_{10}), fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less ($PM_{2.5}$), and lead. The pollutants are referred to as "criteria air pollutants" since they are the most prevalent air pollutants known to be harmful to human health, and extensive health-effects criteria documents are available about their effects on human health and welfare. Standards have been established for each criteria pollutant to meet specific public health and welfare criteria set forth in the federal Clean Air Act (CAA). California has generally adopted more stringent ambient air quality standards for the criteria air pollutants (referred to as State Ambient Air Quality Standards, or state standards) and has adopted air quality standards for some pollutants for which there is no corresponding national standard.

Ozone

Ozone, the main component of photochemical smog, is primarily a summer and fall pollution problem. Ozone is not emitted directly into the air, but is formed through a complex series of chemical reactions involving other compounds that are directly emitted. These directly emitted pollutants (also known as ozone precursors) include reactive organic gases (ROGs) or volatile organic compounds (VOCs), and oxides of nitrogen (NO_X). While both ROGs and VOCs refer to compounds of carbon, ROG is a term used by CARB and is based on a list of exempted carbon compounds determined by CARB. VOC is a term used by the USEPA and is based on USEPA's own exempt list. The time period required for ozone formation allows the reacting compounds to spread over a large area, producing regional pollution problems. Ozone concentrations are the cumulative result of regional development patterns rather than the result of a few significant emission sources.

Once ozone is formed, it remains in the atmosphere for 1 or 2 days. Ozone is then eliminated through reaction with chemicals on the leaves of plants, attachment to water droplets as they fall to earth (rainout), or absorption by water molecules in clouds that later fall to earth with rain (washout).

Short-term exposure to ozone can irritate the eyes and cause constriction of the airways. In addition to causing shortness of breath, ozone can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema.

Carbon Monoxide

CO, a colorless and odorless gas, is a relatively nonreactive pollutant that is a product of incomplete combustion and is mostly associated with motor vehicles. When inhaled at high concentrations, CO combines with hemoglobin in the blood and reduces the oxygen-carrying capacity of the blood. This results in reduced oxygen reaching the brain, heart, and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease, or anemia. CO measurements and modeling were important in the early 1980s, when CO levels were regularly exceeded throughout California. In more recent years, CO measurements and modeling have not been a priority in most California air districts because of the retirement of older polluting vehicles, lower emissions from new vehicles, and improvements in fuels.

Nitrogen Dioxide

NO_2 is a reddish-brown gas that is a by-product of combustion processes. Automobiles and industrial operations are the main sources of NO_2. Combustion devices emit primarily nitric oxide (NO), which reacts through oxidation in the atmosphere to form NO_2. The combined emissions of NO and NO_2 are referred to as NO_X, which are reported as equivalent NO_2. Aside from its contribution to ozone formation, NO_2 can increase the risk of acute and chronic respiratory disease and reduce visibility. NO_2 may be visible as a coloring component of a brown cloud on high-pollution days, especially in conjunction with high ozone levels.

Sulfur Dioxide

SO_2 is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant, mainly as a result of burning high-sulfur-content fuel oils and coal, and from chemical processes occurring at chemical plants and refineries. When SO_2 oxidizes in the atmosphere, it forms sulfur trioxide (SO_3). Collectively, these pollutants are referred to as sulfur oxides (SO_X).

Major sources of SO_2 include power plants, large industrial facilities, diesel vehicles, and oil-burning residential heaters. Emissions of SO_2 aggravate lung diseases, especially bronchitis. It also constricts the breathing passages, especially in people with asthma and people involved in moderate to heavy exercise. SO_2 potentially causes wheezing, shortness of breath, and coughing. Long-term SO_2 exposure has been associated with increased risk of mortality from respiratory or cardiovascular disease.

Particulate Matter

PM_{10} and $PM_{2.5}$ consist of particulate matter that is 10 microns or less in diameter and 2.5 microns or less in diameter, respectively (a micron is one-millionth of a meter). PM_{10} and $PM_{2.5}$ represent fractions of particulate matter that can be inhaled into the air passages and the lungs and can cause adverse health effects. Acute and chronic health effects associated with high particulate levels include the aggravation of chronic respiratory diseases, heart and lung disease, and coughing, bronchitis, and respiratory illnesses in children. Recent mortality studies have shown an association between morbidity and mortality and daily concentrations of particulate matter in the air. CARB has estimated that achieving the ambient air quality standards for PM_{10} could reduce premature mortality rates by 6,500 cases per year (CARB, 2002). Particulate matter can also damage materials and reduce visibility. One common source of $PM_{2.5}$ is diesel exhaust emissions.

PM_{10} consists of particulate matter emitted directly into the air (e.g., fugitive dust, soot, and smoke from mobile and stationary sources, construction operations, fires, and natural windblown dust) and particulate matter formed in the atmosphere by condensation and/or transformation of SO_2 and ROGs. Traffic generates particulate matter emissions through entrainment of dust and dirt particles that settle onto roadways and parking lots. PM_{10} and $PM_{2.5}$ are also emitted by wood burning in residential wood stoves and fireplaces and open agricultural burning. $PM_{2.5}$ can also be formed through secondary processes such as airborne reactions with certain pollutant precursors, including ROGs, ammonia (NH_3), NOx, and SOx.

Lead

Lead is a metal found naturally in the environment and present in some manufactured products. There are a variety of activities that can contribute to lead emissions, which are grouped into two general categories, stationary and mobile sources. On-road mobile sources include light-duty automobiles; light-, medium-, and heavy-duty trucks as well as motorcycles.

Emissions of lead have dropped substantially over the past 40 years. The reduction before 1990 was largely due to the phase-out of lead as an anti-knock agent in gasoline for on-road automobiles. Substantial emission reductions have also been achieved through enhanced controls in the metals-processing industry. In the Basin, atmospheric lead is generated almost entirely by the combustion of leaded gasoline and contributes less than one percent of the material collected as total suspended particulates.

Toxic Air Contaminants

Concentrations of toxic air contaminants (TACs), or in federal parlance, hazardous air pollutants (HAPs), are also used as indicators of ambient air quality conditions. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations.

According to The California Almanac of Emissions and Air Quality (CARB, 2009), the majority of the estimated health risk from TACs can be attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines (diesel particulate matter). Diesel particulate matter differs from other TACs in that it is not a single substance, but rather a complex mixture of hundreds of substances. Although diesel particulate matter is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present.

Unlike the other TACs, no ambient monitoring data are available for diesel particulate matter because no routine measurement method currently exists. However, CARB has made preliminary concentration estimates based on a particulate matter exposure method. This method uses the CARB emissions inventory's PM_{10} database, ambient PM_{10} monitoring data, and the results from several studies to estimate concentrations of diesel particulate matter. In addition to diesel particulate matter, the TACs for which data are available that pose the greatest existing ambient risk in California are benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene.

Odorous Emissions

Odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). Offensive odors are unpleasant and can lead to public distress, generating citizen complaints to local governments. Although unpleasant, offensive odors rarely cause physical harm. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source, wind speed, direction, and the sensitivity of receptors.

Program Area Air Quality Setting

Existing Air Quality

SCAQMD maintains monitoring stations within district boundaries that monitor air quality and compliance with associated ambient standards. The Enhanced Watershed Management Program (EWMP) areas associated with the proposed program are located in multiple jurisdictions within the County of Los Angeles, all of which are located within in the Basin. Given the large geographic region of the EWMP areas, an extensive listing of the air quality monitoring data collected by each SCAQMD monitoring station located within the EWMP areas is not provided in this PEIR. As individual EWMP projects are not assessed separately in this PEIR, the presentation of the air quality data collected by the monitoring stations relevant to each EWMP project is more applicable for inclusion in the environmental documents for future individual EWMP projects.

Both CARB and USEPA use the data measured at air quality monitoring stations to designate areas according to their attainment status for criteria air pollutants. The purpose of these designations is to identify the areas with air quality problems and thereby initiate planning efforts

for improvement. The three basic designation categories are nonattainment, attainment, and unclassified. Unclassified is used in an area that cannot be classified on the basis of available information as meeting or not meeting the standards. In addition, the California designations include a subcategory of nonattainment-transitional, which is given to nonattainment areas that are progressing and nearing attainment. The current attainment status for the Basin is provided in **Table 3.2-1**.

TABLE 3.2-1
SOUTH COAST AIR BASIN ATTAINMENT STATUS

	Attainment Status	
Pollutant	**California Standards**	**Federal Standards**
Ozone	Extreme Nonattainment	Severe Nonattainment
CO	Attainment	Unclassified/ Attainment
NO_2	Attainment	Unclassified/ Attainment
SO_2	Attainment	Attainment
PM_{10}	Nonattainment	Attainment
$PM_{2.5}$	Nonattainment	Nonattainment

SOURCE: CARB, 2013b; USEPA, 2013.

Sensitive Land Uses

Land uses such as schools, children's daycare centers, hospitals, and convalescent homes are considered to be more sensitive to poor air quality than the general public because the population groups associated with these uses have increased susceptibility to respiratory distress. In addition, residential uses are considered more sensitive to air quality conditions than commercial and industrial uses, because people generally spend longer periods of time at their residences, resulting in greater exposure to ambient air quality conditions. Recreational land uses are considered moderately sensitive to air pollution. Exercise places a high demand on respiratory functions, which can be impaired by air pollution, even though exposure periods during exercise are generally short. In addition, noticeable air pollution can detract from the enjoyment of recreation. Given that the majority of the County is highly urbanized with a variety of land use types (e.g., open space, residential, commercial, mixed-use, public and semi-public, and industrial uses), and that the proposed program would be located in various watersheds across the County that span multiple jurisdictions, existing sensitive uses such as residences, schools, hospitals, daycare centers, etc., would be located within and in proximity to the EWMP areas. As described in Section 3.9, *Land Use and Agriculture*, of this PEIR, many of the EWMP areas, including Ballona Creek, Beach Cities, Dominguez Channel, and Marina del Rey, have residential uses as the predominant land use.

3.2.2 Regulatory Setting

The EWMP areas associated with the proposed program are located in Los Angeles County within the Basin. Air quality in the County is regulated by USEPA, CARB, and SCAQMD. The

County of Los Angeles General Plan also contains an Air Quality Element in their 2014 draft document. This element summarizes air quality issues and outlines the goals and policies in the General Plan that will improve air quality and reduce greenhouse gas emissions (Los Angeles County, 2014). Los Angeles County's adopted General Plan has not yet been updated to include this element.

USEPA

Criteria Air Pollutants

At the federal level, USEPA has been charged with implementing national air quality programs. USEPA's air quality mandates are drawn primarily from the federal CAA, which was enacted in 1970. The most recent major amendments to the CAA were made by Congress in 1990.

The CAA requires USEPA to establish National Ambient Air Quality Standards (NAAQS). USEPA has established primary and secondary NAAQS for the following "criteria air pollutants": ozone, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead. **Table 3.2-2** shows the NAAQS for these pollutants.

The CAA also requires each state to prepare an air quality control plan, referred to as a state implementation plan (SIP). The CAA Amendments of 1990 (CAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIPs are modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins, as reported by their jurisdictional agencies. USEPA is responsible for reviewing all SIPs to determine whether they conform to the mandates of the CAA and its amendments, and to determine whether implementing the SIPs will achieve air quality goals. If USEPA determines a SIP to be inadequate, a federal implementation plan that imposes additional control measures may be prepared for the nonattainment area. If an approvable SIP is not submitted or implemented within the mandated time frame, sanctions may be applied to transportation funding and stationary sources of air pollution in the air basin.

USEPA also has regulatory and enforcement jurisdiction over emission sources beyond state waters (outer continental shelf), and those that are under the exclusive authority of the federal government, such as aircraft, locomotives, and interstate trucking. USEPA's primary role at the state level is to oversee state air quality programs. USEPA sets federal vehicle and stationary source emissions standards and provides research and guidance in air pollution programs.

In June 2004, USEPA finalized the adoption of a comprehensive national program/rule to reduce emissions from off-road diesel engines used primarily in construction, agricultural, and industrial applications by integrating engine and fuel controls as a system to gain the greatest emission reductions. Specifically, USEPA adopted new emission standards for off-road diesel engines and sulfur reductions in off-road diesel fuel aimed at dramatically reducing harmful emissions and helping states and local areas that have been designated as 8-hour ozone nonattainment areas to improve their air quality. The new engine standards, which are based on the use of advanced exhaust emission control devices, began to take effect in 2008 and would continue to be phased in until 2015. USEPA estimates particulate matter reductions of 95 percent, NOx reductions of 90

TABLE 3.2-2
AMBIENT AIR QUALITY STANDARDS FOR CRITERIA POLLUTANTS

Pollutant	Averaging Time[a]	State Standard	National Standard	Pollutant Health and Atmospheric Effects	Major Pollutant Sources
Ozone	1 hour 8 hours	0.09 ppm 0.070 ppm[b]	--- 0.075 ppm	High concentrations can directly affect lungs, causing irritation. Long-term exposure may cause damage to lung tissue.	Formed when ROG and NO_X react in the presence of sunlight. Major sources include on-road motor vehicles, solvent evaporation, and commercial/industrial mobile equipment.
Carbon Monoxide (CO)	1 hour 8 hours	20 ppm 9.0 ppm	35 ppm 9 ppm	Classified as a chemical asphyxiant, carbon monoxide interferes with the transfer of fresh oxygen to the blood and deprives sensitive tissues of oxygen.	Internal combustion engines, primarily gasoline-powered motor vehicles.
Nitrogen Dioxide (NO_2)	1 hour Annual Arithmetic Mean	0.18 ppm 0.030 ppm	0.100 ppm 0.053 ppm	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown.	Motor vehicles, petroleum refining operations, industrial sources, aircraft, ships, and railroads.
Sulfur Dioxide (SO_2)	1 hour 3 hours 24 hours Annual Arithmetic Mean	0.25 ppm --- 0.04 ppm ---	75 ppb 0.5 ppm 0.14 ppm 0.030 ppm	Irritates upper respiratory tract; injurious to lung tissue. Can yellow the leaves of plants; destructive to marble, iron, and steel. Limits visibility and reduces sunlight.	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
Respirable Particulate Matter (PM_{10})	24 hours Annual Arithmetic Mean	50 µg/m^3 20 µg/m^3	150 µg/m^3 ---	May irritate eyes and respiratory tract, decreases in lung capacity, increases cancer and mortality. Produces haze and limits visibility.	Dust and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
Fine Particulate Matter ($PM_{2.5}$)	24 hours Annual Arithmetic Mean	--- 12 µg/m^3	35 µg/m^3 12.0 µg/m^3	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and results in surface soiling.	Fuel combustion in motor vehicles, equipment, and industrial sources; residential and agricultural burning; Also formed from photochemical reactions of other pollutants, including NO_X, sulfur oxides, and organics.
Lead (Pb)	30 Day Average Calendar Quarter Rolling 3-Month Average	1.5 µg/m^3 --- ---	--- 1.5 µg/m^3 0.15 µg/m^3	Disturbs gastrointestinal system, and causes anemia, kidney disease, and neuromuscular and neurological dysfunction (in severe cases).	*Present source:* lead smelters, battery manufacturing, and recycling facilities. Past source: combustion of leaded gasoline.
Hydrogen Sulfide	1 hour	0.03 ppm	No National Standard	Nuisance odor (rotten egg smell), headache, and breathing difficulties (higher concentrations)	Geothermal power plants, petroleum production and refining
Sulfates (SO_4)	24 hours	25 µg/m^3	No National Standard	Decrease in ventilatory functions; aggravation of asthmatic symptoms; aggravation of cardio-pulmonary disease; vegetation damage; degradation of visibility; property damage.	Industrial processes.
Visibility-Reducing Particles	8 hours	Extinction of 0.23/km; visibility of 10 miles or more	No National Standard	Reduces visibility, reduced airport safety, lower real estate value, and discourages tourism.	See $PM_{2.5}$.
Vinyl Chloride	24 hours	0.01 ppm	No National Standard	Short-term exposure to high levels of vinyl chloride in the air can cause dizziness, drowsiness, and headaches. Long-term exposure through inhalation and oral exposure can cause liver damage. Cancer is a major concern from exposure to vinyl chloride via inhalation. Vinyl chloride exposure has been shown to increase the risk of angiosarcoma, a rare form of liver cancer in humans.	Polyvinyl chloride (PVC) plastic and vinyl products.

NOTE: ppm = parts per million; ppb = parts per billion; µg/m^3 = micrograms per cubic meter.
[a] The averaging time is the interval of time over which the sample results are reported.
[b] This concentration was approved by CARB on April 28, 2005, and became effective May 17, 2006.

SOURCE: CARB, 2013c.

percent, and the virtual elimination of SO_X from off-road engines that meet the new standards. Because the emission control devices in the off-road diesel engines could potentially be damaged by sulfur, USEPA also targeted the reduction of sulfur levels in off-road diesel fuel as part of its rule. The rule aimed to reduce off-road diesel fuel sulfur levels by 99 percent, resulting in an Ultra Low Sulfur Diesel (ULSD) fuel that has a maximum sulfur concentration of 15 parts per million (ppm). The phase-in of fuel controls to reduce the sulfur levels in off-road diesel fuel began in 2007.

With respect to on-road diesel engines, USEPA promulgated the Heavy-Duty Highway Rule in 2007, which aims to reduce emissions from on-road, heavy-duty diesel trucks by establishing a series of increasingly strict emission standards for new engines. Manufacturers are required to produce new diesel vehicles that meet particulate matter and NO_X emission standards beginning with model year 2007.

Hazardous Air Pollutants

USEPA has programs for identifying and regulating HAPs. The first National Emission Standards for Hazardous Air Pollutants (NESHAPs) were originally required by the CAA in 1970, which were developed for sources and source categories of HAPs that were determined to pose adverse risk to human health. The USEPA Administrator was directed to set risk-based NESHAPs at a level that provided an ample margin of safety to protect the public health from HAPs. Subsequently, in Section 112(d) of the 1990 CAAA, Congress directed USEPA to develop technology-based standards to further regulate HAPs. As opposed to the original conception of NESHAPs as a risk-based standard, the technology-based NESHAPS were established according to Maximum Achievable Control Technology (MACT) requirements. The MACT NESHAP standards were different for major sources than for area sources of HAPs. Major sources are defined as stationary sources with potential to emit more than 10 tons per year (tpy) of a single HAP or more than 25 tpy of any combination of HAPs; all other sources are considered area sources. Section 112(f) of the 1990 CAAA also specified that USEPA determine whether or not to promulgate additional NESHAP standards beyond the MACT within 8 years after promulgation of the MACT standard (but within 9 years after promulgation of the 2-year MACT source categories). Thus, USEPA is required to evaluate the NESHAPs developed according to the MACT standards for any "residual risk" with 8 years of promulgation. If the "residual risk" for a source category does not protect public health with "an ample margin of safety," then USEPA must promulgate health-based standards for that source category to further reduce HAP emissions.

The CAAA also required USEPA to promulgate vehicle or fuel standards containing reasonable requirements that control toxic emissions of, at a minimum, benzene and formaldehyde. Performance criteria were established to limit mobile-source emissions of toxics, including benzene, formaldehyde, and 1,3-butadiene. In addition, Section 219 required the use of reformulated gasoline in selected areas with the most severe ozone nonattainment conditions to further reduce mobile-source emissions.

CARB

Criteria Air Pollutants

CARB, a department of the California Environmental Protection Agency, oversees air quality planning and control throughout California. CARB is responsible for coordination and oversight of state and local air pollution control programs in California and for implementation of the California Clean Air Act (CCAA). The CCAA, which was adopted in 1988, requires CARB to establish the California Ambient Air Quality Standards (CAAQS). CARB has established CAAQS for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned criteria air pollutants. Applicable CAAQS are shown in Table 3.2-2.

The CCAA requires all local air districts in the state to endeavor to achieve and maintain the CAAQS by the earliest practical date. The act specifies that local air districts shall focus particular attention on reducing the emissions from transportation and area-wide emission sources, and provides districts with the authority to regulate indirect sources.

Among CARB's other responsibilities are overseeing compliance by local air districts with California and federal laws; approving local air quality plans; submitting SIPs to USEPA; monitoring air quality; determining and updating area designations and maps; and setting emissions standards for new mobile sources, consumer products, small utility engines, off-road vehicles, and fuels.

Toxic Air Contaminants

Air quality regulations also focus on TACs. In general, for those TACs that may cause cancer, there is no concentration that does not present some risk. In other words, there is no safe level of exposure. This contrasts with the criteria air pollutants, for which acceptable levels of exposure can be determined and for which the ambient standards have been established. Instead, USEPA and CARB regulate HAPs and TACs, respectively, through statutes and regulations that generally require the use of the MACT or best available control technology (BACT) for toxics and to limit emissions. These statutes and regulations, in conjunction with additional rules set forth by the districts, establish the regulatory framework for TACs.

TACs in California are regulated primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807 [Chapter 1047, Statutes of 1983]) and the Air Toxics Hot Spots Information and Assessment Act (Hot Spots Act) (AB 2588 [Chapter 1252, Statutes of 1987]). AB 1807 sets forth a formal procedure for CARB to designate substances as TACs. This includes research, public participation, and scientific peer review before CARB can designate a substance as a TAC. To date, CARB has identified more than 21 TACs and adopted USEPA's list of HAPs as TACs. Most recently, diesel particulate matter was added to the CARB list of TACs. Once a TAC is identified, CARB then adopts an airborne toxics control measure (ATCM) for sources that emit that particular TAC. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate BACT to minimize emissions.

The Air Toxics Hot Spots Information and Assessment Act requires existing facilities emitting toxic substances above a specified level to prepare a toxic-emission inventory, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk-reduction measures.

CARB published the *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook), which provides guidance concerning land use compatibility with TAC sources (CARB, 2005). Although it is not a law or adopted policy, the Handbook offers advisory recommendations for the siting of sensitive receptors near uses associated with TACs, such as freeways and high-traffic roads, commercial distribution centers, rail yards, ports, refineries, dry cleaners, gasoline stations, and industrial facilities, to help keep children and other sensitive populations out of harm's way.

SCAQMD

Criteria Air Pollutants

SCAQMD attains and maintains air quality conditions in the Basin through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The clean air strategy of SCAQMD includes preparation of plans for attainment of ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, and issuance of permits for stationary sources of air pollution. SCAQMD also inspects stationary sources of air pollution and responds to citizen complaints; monitors ambient air quality and meteorological conditions; and implements programs and regulations required by the CAA, CAAA, and CCAA. Air quality plans applicable to the proposed program are discussed below.

Air Quality Management Plan

SCAQMD and the Southern California Association of Governments (SCAG) are responsible for preparing the air quality management plan (AQMP), which addresses federal and state CAA requirements. The AQMP details goals, policies, and programs for improving air quality in the Basin.

The 2012 AQMP was adopted by the SCAQMD Governing Board on December 12, 2012. The purpose of the 2012 AQMP for SCAG is to set forth a comprehensive and integrated program that will lead the Basin into compliance with the federal 24-hour $PM_{2.5}$ air quality standard, and to provide an update to the Basin's commitments toward meeting the federal 8-hour ozone standards. The AQMP also serves to satisfy recent USEPA requirements for a new attainment demonstration of the revoked 1-hour ozone standard, as well as a vehicle miles traveled (VMT) emissions offset demonstration.[1] Specifically, once approved by CARB, the AQMP would serve as the official SIP submittal for the federal 2006 24-hour $PM_{2.5}$ standard, for which USEPA has

[1] Although the federal 1-hour ozone standard was revoked in 2005, the USEPA has proposed to require a new 1-hour ozone attainment demonstration in the South Coast extreme ozone nonattainment area as a result of a recent court decision. Although USEPA has replaced the 1-hour ozone standard with a more health protective 8-hour standard, the CAA anti-backsliding provisions require that California have approved plans for attaining the 1-hour standard.

established a due date of December 14, 2012.[2] In addition, the AQMP updates specific new control measures and commitments for emissions reductions to implement the attainment strategy for the 8-hour ozone SIP. The 2012 AQMP sets forth programs which require integrated planning efforts and the cooperation of all levels of government: local, regional, state, and federal. Currently, SCAQMD staff has already begun initiating an early development process for the 2015 AQMP.

SCAQMD Rules and Regulations

All projects are subject to SCAQMD rules and regulations in effect at the time of construction. Specific rules applicable to the construction anticipated under the proposed program would include the following:

Rule 401 – Visible Emissions. This rule is intended to prevent the discharge of pollutant emissions from an emissions source that results in visible emissions. Specifically, the rule prohibits the discharge of any air contaminant into the atmosphere by a person from any single source of emission for a period or periods aggregating more than 3 minutes in any 1 hour that is as dark or darker in shade than that designated No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines.

Rule 402 – Nuisance. This rule is intended to prevent the discharge of pollutant emissions from an emissions source that results in a public nuisance. Specifically, this rule prohibits any person from discharging quantities of air contaminants or other material from any source such that it would result in an injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public. Additionally, the discharge of air contaminants would also be prohibited where it would endanger the comfort, repose, health, or safety of any number of persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property. This rule does not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

Rule 403 – Fugitive Dust. This rule is intended to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (human-made) fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions. Rule 403 applies to any activity or human-made condition capable of generating fugitive dust, and requires best available control measures to be applied to earthmoving and grading activities.

Toxic Air Contaminants

At the local level, air pollution control or management districts may adopt and enforce CARB control measures. Under SCAQMD Regulation XIV (Toxics and Other Non-Criteria Pollutants), and in particular Rule 1401 (New Source Review), all sources that possess the potential to emit TACs are required to obtain permits from SCAQMD. Permits may be granted to these operations

[2] Although the 2012 AQMP was approved by the SCAQMD Board on December 7, 2012, the plan did not get submitted to the USEPA by December 14, 2012 as it first required approval from CARB. The 2012 AQMP was subsequently approved by CARB on January 25, 2013, and as of February 13, 2013 the plan has been submitted by CARB to the USEPA.

if they are constructed and operated in accordance with applicable regulations, including new source review standards and air toxics control measures. SCAQMD limits emissions and public exposure to TACs through a number of programs. SCAQMD prioritizes TAC-emitting stationary sources based on the quantity and toxicity of the TAC emissions and the proximity of the facilities to sensitive receptors. As none of the proposed Best Management Practices (BMP) projects in the County would involve TAC-emitting stationary sources, no permits from SCAQMD would be required for operation of the proposed BMP projects.

The Air Toxics Control Plan (March 2000, revised March 26, 2004) is a planning document designed to examine the overall direction of SCAQMD's air toxics control program. It includes development and implementation of strategic initiatives to monitor and control air toxics emissions. Control strategies that are deemed viable and are within SCAQMD's jurisdiction will each be brought to the SCAQMD Board for further consideration through the normal public review process. Strategies that are to be implemented by other agencies will be developed in a cooperative effort, and the progress will be reported back to the Board periodically.

In September 2008, the SCAQMD completed the Multiple Air Toxics Exposure Study III (MATES III). MATES III is a monitoring and evaluation study conducted in the Basin and is a follow-up to previous air toxics studies. The study consists of several elements, including a monitoring program, an updated emissions inventory of toxic air contaminants, and a modeling effort to characterize risk across the Basin. The study focuses on the carcinogenic risk from exposure to air toxics. However, it does not estimate mortality or other health effects from particulate exposures. MATES III shows that areas within the County have an estimated carcinogenic risk ranging from 1,173 to 1,449 in a million. These model estimates were based on monitoring data collected at 10 fixed sites within the Basin. As of June 2012, SCAQMD began conducting the MATES IV.

County of Los Angeles

General Plan

The Conservation and Open Space Element of the 1980 County of Los Angeles General Plan sets the policy direction for management of the County's natural resources, including air quality. The specific policies in the County General Plan related to improving air quality include:

Policy 1: Actively support strict air quality regulations for mobile and stationary sources, and continued research to improve air quality. Promote vanpooling, carpooling and improved public transportation.

Policy 2: Support the conservation of energy and encourage the development and utilization of new energy sources including geothermal, thermal waste, solar, wind and ocean-related sources.

Policy 3: Promote the use of solar energy to the maximum extent possible.

The Air Quality Element of the Draft 2014 County of Los Angeles General Plan summarizes air quality issues and outlines goals and policies that will improve air quality and reduce greenhouse gas emissions. These specific policies include:

Policy AQ 1.1: Minimize health risks to people from industrial toxic or hazardous air pollutant emissions, with an emphasis on local hot spots, such as existing point sources affecting immediate sensitive receptors.

Policy AQ 1.2: Encourage the use of low or no volatile organic compound (VOC) emitting materials.

Policy AQ 1.3: Reduce particulate inorganic and biological emissions from construction, grading, excavation, and demolition to the maximum extent feasible.

Policy AQ 1.4: Work with local air quality management districts to publicize air quality warnings, and to track potential sources of airborne toxics from identified mobile and stationary sources.

Policy AQ 2.1: Encourage the application of design and other appropriate measures when siting sensitive uses, such as residences, schools, senior centers, daycare centers, medical facilities, or parks with active recreational facilities within proximity to major sources of air pollution, such as freeways.

Policy AQ 2.2: Participate in, and effectively coordinate the development and implementation of community and regional air quality programs.

Policy AQ 3.1: Facilitate the implementation and maintenance of the Community Climate Action Plan to ensure that the County reaches its climate change and greenhouse gas emission reduction goals.

Policy AQ 3.2: Reduce energy consumption in County operations by 20 percent by 2015.

Policy AQ 3.3: Reduce water consumption in County operations.

Policy AQ 3.4: Participate in local, regional and state programs to reduce greenhouse gas emissions.

Policy AQ 3.5: Encourage maximum amounts of energy conservation in new development and municipal operations.

Policy AQ 3.6: Support and expand urban forest programs within the unincorporated areas.

City General Plans

The numerous cities encompassed by the EWMP project area all have their own respective city General Plans, some of which may contain policies that address air quality. As implementation of the individual structural BMP projects proceed, specific policies and objectives pertaining to air

quality from applicable city General Plans will be identified and evaluated on a project-by-project basis during subsequent California Environmental Quality Act (CEQA) environmental processes.

3.2.3 Impact Assessment

Thresholds of Significance

Based on Appendix G of the CEQA Guidelines, impacts related to air quality may be considered significant if the proposed program would:

- Conflict with or obstruct implementation of the applicable air quality plan.
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation.
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).
- Expose sensitive receptors to substantial pollutant concentrations.
- Create objectionable odors affecting a substantial number of people.

As guided by Appendix G of the CEQA Guidelines, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the above determinations. As such, the significance thresholds and analysis methodologies in SCAQMD's *CEQA Air Quality Handbook* are used in evaluating project impacts. The SCAQMD has established daily mass emissions thresholds for criteria pollutants and ozone precursors, which are shown in **Table 3.2-3**

Program Impact Discussion

Air Quality Plan

Impact 3.2-1: The project could conflict with or obstruct implementation of the applicable air quality plan.

Structural (Regional, Centralized, and Distributed) BMPs

In preparation of the AQMP, SCAQMD and SCAG use land use designations contained in General Plan documents to forecast, inventory, and allocate regional emissions from land use and development-related sources. For purposes of analyzing consistency with the AQMP, projects that are consistent with the regional population, housing, and employment forecasts identified by SCAG are considered to be consistent with the AQMP growth projections, since the forecast assumptions by SCAG forms the basis of the land use and transportation control portions of the AQMP.

TABLE 3.2-3
SCAQMD REGIONAL AIR QUALITY SIGNIFICANCE THRESHOLDS

	Mass Daily Thresholds (lbs/day)	
Pollutant	**Construction**	**Operations**
Oxides of Nitrogen (NO_X)	100	55
Reactive Organic Gases (ROG)	75	55
Respirable Particulate Matter (PM_{10})	150	150
Fine Particulate Matter ($PM_{2.5}$)	55	55
Oxides of Sulfur (SO_X)	150	150
Carbon Monoxide (CO)	550	550
Lead[a]	3	3
TACs (including carcinogens and non-carcinogens	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic & Acute Hazard Index ≥ 1.0 (project increment)	

[a] As the proposed program would not involve the development of any major lead emissions sources, lead emissions are not analyzed further in the PEIR.

SOURCE: SCAQMD, 2011.

Additionally, since SCAG's regional growth forecasts are based upon, among other things, land uses designated in General Plans, a project that is consistent with the land use designated in a city's General Plan would also be consistent with the SCAG's regional forecast projections, and thus also with the AQMP growth projections.

Implementation of the proposed program would involve the installation of structural control measures that would be constructed as BMPs to reduce the impact of stormwater and non-stormwater on receiving water quality within the EWMP areas. As such, the proposed program is not a land use project and its implementation would not induce any additional growth within the EWMP areas in the County. Therefore, the proposed program would not conflict with, or obstruct, implementation of the AQMP. Overall, this impact would be less than significant.

Mitigation Measures: None required

Significance Determination: Less than significant

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, no impacts associated with implementation of the SCAQMD's AQMP would result.

Mitigation Measures: None required

Significance Determination: No impact

Air Quality Standards

Impact 3.2-2: The project could violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Structural (Regional, Centralized, and Distributed) BMPs

Construction

Development of the proposed structural BMPs would generally involve construction phases such as site preparation, grading and excavation, and construction of the structural control measure. Construction activities associated with each structural BMP (regional, centralized, and distributed) would generate pollutant emissions from the following general activities: (1) site preparation, grading, and excavation; (2) construction workers traveling to and from a BMP site; (3) delivery and hauling of construction supplies to and soil and debris from the structural BMP site; (4) fuel combustion by on-site construction equipment; and (5) construction of the structural BMP. These construction activities would temporarily create emissions of dust, fumes, equipment exhaust, and other air contaminants. Construction activities involving site preparation and grading would primarily generate PM_{10} emissions. Mobile source emissions (use of diesel-fueled equipment on-site, and traveling to and from a BMP site) would primarily generate NO_X emissions. The amount of emissions generated on a daily basis would vary, depending on the intensity and types of construction activities occurring at the same time.

The timing and sequencing of the development of the proposed structural BMPs within the EWMP areas are currently unknown. Thus, the amount of program-related construction that would occur on a daily or annual basis cannot be determined with any certainty at this time. As such, it is expected that the construction activities for the structural BMPs in the EWMP areas would occur intermittently throughout the course of the program implementation period Construction impacts associated with each structural BMP development would be short-term in nature and limited to the period of time when construction activity is taking place for that particular development. Although it is beyond the scope of this PEIR to assess the construction emissions for each individual BMP project, for the purpose of this analysis an emissions estimate for a representative "worst-case" construction scenario of each structural BMP type (i.e., distributed, centralized, and regional) is provided to demonstrate the magnitude of the daily emissions that can be generated by each structural BMP type. As such, a worst-case construction scenario was defined for a small-, medium-, and large-scale structural BMP project, which corresponds to a distributed, centralized, and regional structural BMP project, respectively. In addition, the year 2015 was used as the construction analysis year to provide a conservative analysis, since construction equipment used in future years beyond 2015 would likely emit pollutants at a lower rate because of more stringent emission standards, advances in technologies and fuels, and equipment turnover.

The maximum daily construction emissions for the three structural BMP project types were estimated using the California Emissions Estimator Model (CalEEMod), which is designed to model construction emissions for land use development projects based on building size, land use

and type, and disturbed acreage, and allows for the input of project-specific information. The construction-related emissions of criteria air pollutants for the three structural BMP types were modeled based on general information provided in the project description and CalEEMod default settings along with reasonable assumptions based on other similar types of projects. The specific modeling parameters pertaining to the types and amount of construction equipment used during each construction phase for a representative distributed, centralized, and regional structural BMP project that was used to generate construction emissions are shown in **Tables 3.2-4**, **3.2-5**, and **3.2-6**, respectively.

TABLE 3.2-4
MODELING PARAMETERS FOR WORST-CASE CONSTRUCTION SCENARIO FOR A DISTRIBUTED BMP PROJECT

Construction Phase	Construction Equipment Type	Construction Equipment Quantity	Construction Equipment Daily Usage Hours
Site Preparation	Excavator	1	8
	Tractors/Loaders/Backhoes	1	6
	Other General Industrial Equipment	1	8
Grading	Graders	1	4
	Rubber Tired Dozers	1	4
	Tractors/Loaders/Backhoes	1	8
Building Construction	Forklifts	1	8
	Generator Sets	1	8
	Tractors/Loaders/Backhoes	2	8
	Welders	1	8
Acres of Grading:	2		

TABLE 3.2-5
MODELING PARAMETERS FOR WORST-CASE CONSTRUCTION SCENARIO FOR A CENTRALIZED BMP PROJECT

Construction Phase	Construction Equipment Type	Construction Equipment Quantity	Construction Equipment Daily Usage Hours
Site Preparation	Excavator	2	6
	Tractors/Loaders/Backhoes	3	8
	Other General Industrial Equipment	1	8
Grading	Graders	2	8
	Rubber Tired Dozers	2	8
	Tractors/Loaders/Backhoes	2	8
Building Construction	Forklifts	2	8
	Generator Sets	2	8
	Tractors/Loaders/Backhoes	3	8
	Welders	1	8
Acres of Grading:	10		

TABLE 3.2-6
MODELING PARAMETERS FOR WORST-CASE CONSTRUCTION SCENARIO FOR A REGIONAL BMP PROJECT

Construction Phase	Construction Equipment Type	Construction Equipment Quantity	Construction Equipment Daily Usage Hours
Site Preparation	Excavator	3	8
	Tractors/Loaders/Backhoes	4	8
	Other General Industrial Equipment	3	8
	Rubber Tired Dozers	2	8
Grading	Graders	2	8
	Rubber Tired Dozers	3	8
	Tractors/Loaders/Backhoes	4	8
Building Construction	Forklifts	3	8
	Generator Sets	4	8
	Tractors/Loaders/Backhoes	4	7
	Welders	1	8
Acres of Grading:	40		

Tables 3.2-7, **3.2-8**, and **3.2-9** summarize the modeled worst-case daily emissions that are estimated to occur on peak construction days for a representative distributed, centralized, and regional structural BMP project, respectively. The CalEEMod modeling for each representative structural BMP project type assumes that appropriate dust control measures would be implemented during each phase of development as required by SCAQMD Rule 403—Fugitive Dust. These dust control measures generally include, but are not limited to, the following:

- All haul trucks shall be covered when loaded with fill.
- Paved streets shall be swept at least once per day where there is evidence of dirt that has been carried on to the roadway.
- Watering trucks shall be used to minimize dust. Watering should be sufficient to confine dust plumes to the project work areas.
- Active disturbed areas shall have water applied to them three times daily.
- Inactive disturbed areas shall be revegetated as soon as feasible to prevent soil erosion.
- For disturbed surfaces to be left inactive for four or more days and that will not be revegetated, a chemical stabilizer shall be applied per manufacturer's instruction.
- For unpaved roads, chemical stabilizers shall be applied or the roads shall be watered once per hour during active operation.
- Vehicle speed on unpaved roads shall be limited to 15 miles per hour.
- For open storage piles that will remain on-site for two or more days, water shall be applied once per hour, or coverings shall be installed.

- For paved road track-out, all haul vehicles shall be covered and shall maintain a freeboard height of 12 inches.
- During high wind conditions (wind speeds in excess of 25 miles per hour), all earthmoving activities shall cease or water shall be applied to soil not more than 15 minutes prior to disturbing such soil.
- Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the construction site each trip on a gravel surface to prevent dirt and dust from impacting the surrounding areas.

TABLE 3.2-7
ESTIMATED PEAK DAILY EMISSIONS FOR PROJECT CONSTRUCTION ACTIVITIES FOR A DISTRIBUTED BMP PROJECT

	Estimated Maximum Daily Emissions (lbs/day)					
Construction Activity	**ROG**	**NO_X**	**CO**	**SO_x**	**PM_{10}[a]**	**$PM_{2.5}$[a]**
Site Preparation: *On-Site*	1.08	10.83	7.38	0.01	0.73	0.67
Off-Site	0.04	0.05	0.53	1.06	7.90	7.20
Total Emissions:	**1.12**	**10.88**	**7.91**	**1.07**	**8.63**	**7.87**
Grading: *On-Site*	2.24	16.06	15.02	0.20	1.30	1.20
Off-Site	5.87	80.41	67.88	0.21	1.52	1.39
Total Emissions:	**8.11**	**96.47**	**82.90**	**0.41**	**2.82**	**2.59**
Building: *On-Site*	2.30	16.03	12.00	.02	1.24	1.19
Off-Site	0.17	0.23	2.45	4.91	3.64	3.34
Total Emissions:	**2.47**	**16.26**	**14.45**	**4.93**	**4.88**	**4.53**
Maximum Regional Daily Emissions	**8.11**	**96. 47**	**82.90**	**0.41**	**2.82**	**2.59**
Regional Significance Threshold	*75*	*100*	*550*	*150*	*150*	*55*
Significant Impact?	No	No	No	No	No	No

NOTE: See Appendix C for CalEEMod model outputs.

[a] PM_{10} and $PM_{2.5}$ emission estimates are based on compliance with SCAQMD Rule 403 requirements for fugitive dust suppression.

TABLE 3.2-8
ESTIMATED PEAK DAILY EMISSIONS FOR PROJECT CONSTRUCTION ACTIVITIES FOR A CENTRALIZED BMP PROJECT

	Estimated Maximum Daily Emissions (lbs/day)					
Construction Activity	**ROG**	**NO_X**	**CO**	**SO_x**	**PM_{10}[a]**	**$PM_{2.5}$[a]**
Site Preparation: *On-Site*	2.10	20.98	14.56	0.02	1.45	1.34
Off-Site	0.07	0.09	0.99	1.99	1.48	1.35
Total Emissions:	**2.17**	**21.07**	**15.55**	**2.01**	**2.93**	**2.69**
Grading: *On-Site*	5.39	57.37	36.76	0.04	3.10	2.85
Off-Site	6.93	108.06	80.26	0.25	1.79	1.64
Total Emissions:	**12.32**	**165.43**	**117.02**	**0.29**	**4.89**	**4.49**
Building: *On-Site*	3.48	25.48	18.62	0.03	1.97	1.88
Off-Site	1.60	8.32	21.25	0.04	0.14	0.13
Total Emissions:	**5.08**	**33.80**	**39.87**	**0.07**	**2.11**	**2.01**
Maximum Regional Daily Emissions	**12.32**	**165.43**	**117.02**	**0.29**	**4.89**	**4.49**
Regional Significance Threshold	*75*	*100*	*550*	*150*	*150*	*55*
Significant Impact?	No	**Yes**	No	No	No	No

NOTE: See Appendix C for CalEEMod model outputs.
[a] PM_{10} and $PM_{2.5}$ emission estimates are based on compliance with SCAQMD Rule 403 requirements for fugitive dust suppression.

TABLE 3.2-9
ESTIMATED PEAK DAILY EMISSIONS FOR PROJECT CONSTRUCTION ACTIVITIES FOR A REGIONAL BMP PROJECT

	Estimated Maximum Daily Emissions (lbs/day)					
Construction Activity	**ROG**	**NO_X**	**CO**	**SO_x**	**PM_{10}[a]**	**$PM_{2.5}$[a]**
Site Preparation: *On-Site*	6.43	67.27	48.36	0.05	4.00	3.68
Off-Site	0.14	0.19	1.98	3.98	2.95	2.71
Total Emissions:	**6.57**	**67.46**	**50.34**	**4.03**	**6.95**	**6.39**
Grading: *On-Site*	6.75	72.62	48.35	0.05	3.84	3.53
Off-Site	11.76	183.65	136.01	0.41	3.04	2.79
Total Emissions:	**18.51**	**256.27**	**184.36**	**0.46**	**6.88**	**6.32**
Building: *On-Site*	5.46	41.01	29.69	0.04	3.14	3.02
Off-Site	6.43	33.48	85.27	0.16	0.56	0.52
Total Emissions:	**11.89**	**74.58**	**114.96**	**.20**	**3.70**	**3.54**
Maximum Regional Daily Emissions	**18.51**	**256.27**	**184.36**	**0.46**	**6.88**	**6.32**
Regional Significance Threshold	*75*	*100*	*550*	*150*	*150*	*55*
Significant Impact?	No	**Yes**	No	No	No	No

NOTE: See Appendix C for CalEEMod model outputs.
[a] PM_{10} and $PM_{2.5}$ emission estimates are based on compliance with SCAQMD Rule 403 requirements for fugitive dust suppression.

As shown in Table 3.2-7, implementation of distributed BMPs would not result in significant air emissions when assuming worst-case construction methods. However, as shown in Tables 3.2-8 and 3.2-9, for some of the larger regional and centralized BMPs, the maximum daily level of construction-generated emissions of NO_X would exceed the applicable SCAQMD-recommended thresholds under the worst-case construction scenario. The remaining criteria pollutants (i.e., ROG, CO, SOx, PM_{10}, and $PM_{2.5}$) would not exceed the applicable SCAQMD-recommended thresholds. The exceedance of SCAQMD's threshold for NO_X emissions for larger BMPs would be generated primarily during the grading phase, when emissions associated with off-road construction equipment and on-road soil hauling activities would occur. Thus, impacts associated with NOx emissions during construction activities of centralized and regional structural BMPs are considered significant.

It should be noted that the sample construction scenarios provided in this analysis for a single distributed, centralized, and regional structural BMP project represent an estimation of construction methods and emissions. It is likely that the actual emissions associated with each structural BMP type would be less than those presented in this PEIR.

As discussed previously, it is anticipated that future structural BMP developments associated with the proposed program would be reviewed on a case-by-case basis to ascertain whether an individual development would generate potentially significant air quality impacts during construction, and, where it is necessary, will require the implementation of mitigation measures to minimize air emissions and reduce potentially significant impacts. As such, the identification of a significant program-level impact from construction in this PEIR for the proposed program does not preclude the finding of less-than-significant impacts from construction for future individual structural BMP projects within the EWMP areas.

For BMPs that may result in significant air emissions as determined by implementing agencies, **Mitigation Measures AIR-1** and **AIR-2** would need to be implemented to reduce construction emissions to less than significant levels. For smaller BMPs including distributed BMPs, air emissions would not be significant and would not require mitigation measures. Table 3.2-10 summarizes which BMPs would require mitigation measures.

While implementation of Mitigation Measures AIR-1 and AIR-2 would reduce construction-related emissions, they may not reduce these emissions to levels below the SCAQMD thresholds for every structural BMP project, as the amount of emissions generated for each structural BMP project would vary depending on its size, the land area that would need to be disturbed during construction, and the length of the construction schedule. Implementation of large regional or centralized BMPs could result in temporary significant and unavoidable air emissions during peak periods of construction.

Operation

Implementation of the proposed program would not result in substantial long-term regional emissions of criteria air pollutants. The proposed structural BMPs are not land use projects and, therefore, would not generate daily vehicle-exhaust emissions by the motor vehicles traveling to and from the individual project areas. While it is anticipated that implementing agencies would

conduct visits to the structural BMP sites for inspection and maintenance activities, these visits would occur only periodically throughout the year and would result in minimal emissions. Additionally, while some of the centralized and regional structural BMPs may require the installation of pump stations and ancillary components, this equipment would be electrically powered and would not generate emissions at the BMP sites.

Some Regional BMPs may involve grading large areas to be used as percolation basins. Some of these areas may be unvegetated, which may result in dust erosion. Implementing agencies would be required to prepare a Dust Control Plan to be in compliance with Rule 403. Stabilizing soils with binders, gravel, or vegetation would reduce dust emissions from large graded areas and prevent significant PM_{10} emissions. Compliance with existing dust emission regulations, specifically Rule 403, would ensure that operational impacts would be less than significant.

Mitigation Measures:

AIR-1: Implementing agencies shall require for large regional or centralized BMPs the use of low-emission equipment meeting Tier II emissions standards at a minimum and Tier III and IV emissions standards where available as CARB-required emissions technologies become readily available to contractors in the region.

AIR-2: For large construction efforts that may result in significant air emissions, implementing agencies shall encourage contractors to use lower-emission equipment through the bidding process where appropriate.

Significance Determination: Impacts from construction emissions would remain significant and unavoidable for some of the larger projects as there are no other feasible mitigation measures available to reduce these impacts at this program level; impacts from operational emissions would be less than significant. (The application of these mitigation measures to specific BMP types and categories are identified in Table 3.2-10.)

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, no air quality impacts associated with construction or operational activities would result.

Mitigation Measures: None required

Significance Determination: No impact

Cumulative Impacts

Impact 3.2-3: The program could result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

Structural (Regional, Centralized, and Distributed) BMPs

As the Basin is currently in nonattainment for ozone, PM_{10}, and $PM_{2.5}$, cumulative development consisting of the proposed program along with other reasonably foreseeable future projects in the Basin as a whole could violate an air quality standard or contribute to an existing or projected air quality violation. However, based on SCAQMD's cumulative air quality impact methodology, SCAQMD recommends that if an individual project results in air emissions of criteria pollutants (ROG, CO, NOx, SOx, PM_{10}, and $PM_{2.5}$) that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the proposed program region is in nonattainment under an applicable federal or state ambient air quality standard.

As discussed previously under Impact 3.2-2, under conditions where multiple structural BMPs would be constructed concurrently in the EWMP areas, it is anticipated that the total aggregate construction emissions generated from these multiple structural BMP projects on a daily basis would exceed the SCAQMD's significance thresholds for criteria pollutants. Even with implementation of **Mitigation Measures AIR-1** and **AIR-2**, the resulting aggregate daily emissions may not be reduced to levels below the SCAQMD thresholds should multiple structural BMP projects be constructed concurrently. Thus, construction-related air quality impacts associated with the proposed program would be considered significant and unavoidable. Therefore, as pollutants for which the Basin is in nonattainment (i.e., ozone, PM_{10}, and $PM_{2.5}$) associated with the proposed program could exceed SCAQMD's respective thresholds for construction, these pollutant emissions would, in conjunction with other past, current, and probable future projects, be cumulatively considerable, and cumulative impacts would be significant and unavoidable.

With respect to operational emissions, program implementation would not result in substantial long-term regional emissions of criteria air pollutants and would not exceed the SCAQMD thresholds of significance for criteria pollutants. As such, the proposed program's operational emissions would not be cumulatively considerable and cumulative air quality impacts would be less than significant.

> **Mitigation Measures:** Implement **Mitigation Measures AIR-1** through **AIR-2**
>
> **Significance After Mitigation**: Significant and unavoidable for construction; less-than-significant for operations. (The application of these mitigation measures to specific BMP types and categories are identified in Table 3.2-10.)

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, no cumulative air quality impacts in the Basin would result.

> **Mitigation Measures:** None required
>
> **Significance Determination:** No impact

Sensitive Receptors

Impact 3.2-4: The project could expose sensitive receptors to substantial pollutant concentrations.

Structural (Regional, Centralized, and Distributed) BMPs

Construction and operation of new developments that would occur under the proposed program could potentially expose sensitive receptors in the EWMP areas of the County to localized air quality impacts from criteria pollutants and TACs. Separate discussions are provided below analyzing the potential for sensitive receptors to be exposed to these pollutant sources.

Carbon Monoxide Hotspots

A CO hotspot is an area of localized CO pollution that is caused by severe vehicle congestion on major roadways, typically near intersections. Projects may worsen air quality if they increase the percentage of vehicles in cold start modes by two percent or more; significantly increase traffic volumes (by five percent or more) over existing volumes; or worsen traffic flow, defined for signalized intersections as increasing average delay at intersections operating at Level of Service (LOS) E or F or causing an intersection that would operate at LOS D or better without the project, to operate at LOS E or F.

While construction-related traffic on the local roadways would occur during construction of each structural BMP project, the net increase of construction worker vehicle trips to the existing traffic volumes on the local roadways would be relatively small and would not result in CO hotspots. Additionally, the construction-related vehicle trips would only occur in the short-term, and would cease once construction activities for a structural BMP project has been completed. Thus, because trip-generating land uses are not associated with the proposed program and the amount of maintenance visits to the structural BMP sites would be minimal, impacts associated with CO hotspots would be less than significant and no mitigation is required.

Mitigation Measures: None required

Significance Determination: Less than significant

Localized Construction Air Quality Impacts – Criteria Air Pollutants

The EWMP areas associated with the proposed program are located in multiple jurisdictions within the County of Los Angeles, all of which are located within in the Basin. Given that the majority of the County is highly urbanized with a variety of land use types and that the proposed program would be located in various watersheds across the County that span multiple jurisdictions, existing sensitive uses such as residences, schools, hospitals, daycare centers, etc., would be located within and in proximity to the EWMP areas. During construction of the individual structural BMP projects in the EWMP areas, existing sensitive receptors that happen to be located adjacent to or near these structural BMP construction sites could be exposed to significant adverse localized air quality impacts. According to SCAQMD's localized significance

threshold (LST) methodology, projects greater than 5 acres in size should perform air quality dispersion modeling to determine whether construction activities would cause or contribute to adverse localized air quality impacts. Where projects would be less than 5 acres in size, the SCAQMD provides screening tables that can be used to determine the maximum allowable daily emissions that would satisfy the LSTs without project-specific dispersion modeling. LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard. According to SCAQMD's LST methodology, LSTs are only applicable to the on-site construction emissions that are generated by a project and do not apply to emissions generated off-site such as mobile emissions on roadways from worker, vendor, and haul truck trips.

SCAQMD has indicated, in its 2003 *Final Localized Significance Threshold Methodology* document, that LSTs are applicable to projects at the project-specific level and are not intended for regional projects.[3] Given the large geographic area associated with the project, an LST analysis would not be applicable to this PEIR. Depending on the size and scale of a particular structural BMP project and the intensity of the construction effort that would be required, the construction emissions generated by a new structural BMP project could potentially cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standards at the existing sensitive uses located in the vicinity of that project. For individual structural BMP projects that would fit this scenario, **Mitigation Measure AIR-3** would be implemented, which requires a project-level LST analysis to be prepared to demonstrate that the construction emissions of a structural BMP project would not exceed SCAQMD's LSTs or result in pollutant emissions that would cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standards.[4] With implementation of Mitigation Measures AIR-3, this impact would be reduced to less than significant. For smaller BMPs, including distributed BMPs, air emissions would not be significant and would not require mitigation measures.

Mitigation Measures:

AIR-3: For large construction efforts associated with regional or centralized BMPs, implementing agencies shall conduct a project-specific LST analysis where necessary to determine local health impacts to neighboring land uses. Where it is determined that construction emissions would exceed the applicable LSTs or the most stringent applicable federal or state ambient air quality standards, the structural BMP project shall reduce its daily construction intensity (e.g., reducing the amount of equipment used daily, reducing the amount of soil graded/excavated daily) to a level where the structural BMP project's construction emissions would no longer exceed SCAQMD's LSTs or result in pollutant

3 Page 1-1 of SCAQMD's 2003 *Final Localized Significance Threshold Methodology* document.

4 As discussed previously, the LSTs for NO_X, CO, PM_{10}, and $PM_{2.5}$ provided in SCAQMD's screening tables represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard for those respective pollutants. For projects that are less than 5 acres, the SCAQMD's LST screening tables can be used to determine whether construction-related emissions would result in a potential significant air quality impact. For projects that exceed 5 acres in size, dispersion modeling should be conducted, per SCAQMD's LST methodology, to determine whether the most stringent applicable federal or state ambient air quality standards for pollutants would be exceeded, which would result in a significant air quality impact.

emissions that would cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standards.

Significance Determination: Less than significant with mitigation. (The application of these mitigation measures to specific BMP types and categories are identified in Table 3.2-10.)

Localized Construction Air Quality Impacts – Toxic Air Contaminants

Intermittent construction activities occurring throughout the program area over the implementation period of the individual structural BMPs would result in short-term emissions of diesel particulate matter, which is a TAC. During construction of each individual structural BMP project within the EWMP areas, the exhaust of off-road heavy-duty diesel equipment would emit diesel particulate matter during general construction activities, such as site preparation (e.g., excavation, grading, and clearing); materials transport and handling; structural BMP construction; and other miscellaneous activities. Similar to the localized criteria pollutant emissions during construction, the short-term emissions of diesel particulate matter associated with each structural BMP development would only affect its own remote group of existing sensitive receptors that are located nearby. SCAQMD has not adopted a methodology for analyzing such impacts and has not recommended that health risk assessments be completed for construction-related emissions of TACs.

The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., the potential exposure to TACs to be compared to applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the maximally exposed individual. Thus, the risks estimated for a maximally exposed individual are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 70-year exposure period; however, such assessments should be limited to the period or duration of activities associated with each of the future individual structural BMP development occurring in the EWMP areas under the proposed program.

The construction period for any individual structural BMP that would occur in the EWMP areas under the proposed program would be finite and much less than the 70-year period used for risk determination. Because off-road heavy-duty diesel equipment would be used only temporarily at each individual structural BMP site, the construction activities associated with each structural BMP project in the EWMP areas would not expose sensitive receptors to substantial emissions of TACs. This impact would be less than significant.

Mitigation Measures: None required

Significance Determination: Less than significant

Operational Sources of Toxic Air Contaminants

Implementation of the program, which would involve the installation of structural control measures that would be constructed as BMPs to reduce the impact of stormwater and non-stormwater on receiving water quality, would not result in new land uses in the EWMP areas.

Operation of the structural BMPs would not involve TAC-emitting equipment, as the majority of the structural BMPs would operate passively without the use of mechanized equipment. While some of the centralized and regional structural BMPs may require the use of pump stations and associated components, such equipment would be electrically driven and would not result in direct emissions at the individual structural BMP sites. Therefore health risks from TAC emissions associated with project operations would not occur.

Mitigation Measures: None required

Significance Determination: No impact

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, no impacts associated with exposure of sensitive receptors to substantial pollutant emissions would result.

Mitigation Measures: None required

Significance Determination: No impact

Objectionable Odors

Impact 3.2-5: The proposed program could create objectionable odors affecting a substantial number of people.

Structural (Regional, Centralized, and Distributed) BMPs

According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The project does not include any uses identified by the SCAQMD as being associated with odors.

During the construction phases for each of the new structural BMP projects that would occur in the EWMP areas over the course of the implementation period, exhaust from construction equipment may produce discernible odors typical of most construction sites. Such odors would be a temporary source of nuisance to adjacent uses, but because they are temporary and intermittent in nature, would not be considered a significant environmental impact. Therefore, impacts associated with objectionable odors during construction would be less than significant.

Although rainfall in Southern California is limited to certain times of year, and most drainage channels are dry for most of the year, some structural BMPs may involve retaining intermittent stormwater or dry weather flows on a site that may result in organic odors as water levels fluctuate and decomposition occurs in saturated mud. Restored creeks and estuaries may be permanently wet, resulting in odors from saturated mud or algal blooms. Standing water may emit odors if algal blooms occur for periods of time before the water dries or percolates. If these facilities are near sensitive receptors such as residential areas, these odors may result in a severe nuisance, particularly during night time hours. Regular maintenance may be sufficient to reduce

odors in some situations. **Mitigation Measure AES-2** requires implementing agencies to prepare and implement maintenance plans for all BMPs installed. Implementation of **Mitigation Measure AIR-4** promotes the consideration of odors when siting BMP locations and types.

Mitigation Measure: Implement **Mitigation Measure AES-2**

AIR-4: During planning of structural BMPs, implementing agencies shall assess the potential for nuisance odors to affect a substantial number of people. BMPs that minimize odors shall be considered the priority when in close proximity to sensitive receptors.

Significance Determination: Less than significant. (The application of these mitigation measures to specific BMP types and categories are identified in Table 3.2-10.)

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, no impacts associated with objectionable odors would result.

Mitigation Measures: None required

Significance Determination: No impact

3.2.4 Summary of Impact Assessment

Table 3.2-10 shows a summary of the structural BMPs requiring mitigation.

TABLE 3.2-10
SUMMARY OF AIR QUALITY IMPACTS REQUIRING MITIGATION MEASURES

	Thresholds of Significance				
Structural BMPs	**Air Quality Plan**	**Air Quality Standards**	**Nonattainment Criteria Pollutants**	**Sensitive Receptors**	**Objectionable Odors**
Applicable Mitigation Measures:	**None Required**	**AIR-1; AIR-2**	**AIR-1; AIR-2**	**AIR-3**	**AES-2; AIR-4**
Regional BMPs					
Regional Detention and Infiltration	No	Yes	Yes	Yes	Yes
Regional Capture, Detention and Use	No	Yes	Yes	Yes	Yes
Centralized BMP					
Bioinfiltration	No	Yes	Yes	Yes	Yes
Constructed Wetlands	No	Yes	Yes	Yes	Yes
Treatment/Low-Flow Diversions	No	Yes	Yes	Yes	Yes
Creek, River, Estuary Restoration	No	Yes	Yes	Yes	Yes
Distributed BMPs					
Site-Scale Detention	No	No	No	No	Yes
LID – Infiltration/Filtration BMPs – Porous Pavement, Green Streets, Bioswale/Filter Strips, Downspout Disconnects	No	No	No	No	Yes
LID – Green Infrastructure – Capture and Use – Cisterns, Rain Barrels, Green roofs, Planter Boxes	No	No	No	No	Yes
Flow-through Treatment BMPs	No	No	No	No	Yes
Source-Control Treatment BMPs (catch basin inserts/screens, hydrodynamic separators, gross solids removal devices)	No	No	No	No	Yes
Low-Flow Diversions	No	No	No	No	Yes

NOTE: These conclusions are based on typical BMP size and location.

3.3 Biological Resources

This section establishes the existing conditions and provides an evaluation of potential impacts to biological resources associated with the proposed program.

3.3.1 Environmental Setting

The 12 Enhanced Watershed Management Program (EWMP) areas are each located within Los Angeles County (County), which exhibits native habitats corresponding with the California Floristic Province. The County experiences a mediterranean climate, which is generally characterized by relatively heavy winter precipitation and dry summers. The County encompasses the intersection of the Transverse and Peninsular mountain ranges, supporting a variety of habitats within mountain ranges, broad alluvial valleys, deserts, and coastal shorelines. Los Angeles County hosts one of the most dense and populous urban metropolises in the country, which has substantially altered the native habitats. However, within the mountainous areas and some drainage areas, native habitats still remain.

Habitat Types

The EWMP areas contain an array of coastal habitats such as: marine, intertidal, estuarine, coastal salt marsh, and beach dunes; freshwater aquatic habitat such as marshes, lakes, and ponds; riverine aquatic habitat including streambeds and associated riparian areas; and upland communities such as coastal sage scrub, chaparral, foothill woodlands, and coniferous forests in the mountains. The dominant native plant community in Los Angeles County is chaparral (Los Angeles County, 2012a). In general, communities that are relatively undisturbed and have connectivity to other open space areas function as higher-quality habitat for sensitive plants and wildlife. Non-native, disturbed, and/or isolated habitats generally provide lower-quality wildlife habitat, though some sensitive plants and wildlife are known to occur in such areas.

Habitats within the EWMP Areas

The proposed program comprises12 EWMP areas, each with a disparate mix of urban development and natural habitat features. Although diverse habitats may occur throughout the County and within each of the EWMP areas to varying degrees, the following summaries combine EWMP groups into the following six distinct watershed groups that have similar habitat types:

1. **Southern Coastal EWMP Watersheds** ***(Beach Cites, Peninsula, Southern Santa Monica Bay, Marina del Rey, Ballona, Peninsula)*** – These watersheds are dominated by urbanized inland and beach communities with high-density residential and commercial land uses throughout the watersheds. Sensitive habitats in these areas include coastal drainages, coastal lagoons, and dune scrub. However, the most of the drainages in these watersheds have been channelized with hard-bottom channels such as Ballona Creek and provide minimal habitat value to sensitive species. Most of the coastal creeks have been rechannelized and are largely underground with some exceptions in the Peninsula EWMP. The value of riparian and aquatic resources in these urbanized areas is generally low except for some key exceptions, including the Del Rey Lagoon and Ballona Lagoon

and wetlands where the Ballona Creek watershed meets the coast. **Figure 3.3-1** provides photographs of typical drainages in the watershed.

2. **Dominguez Channel (Dominugez Channel EWMP)** – This watershed is characterized by high-density inland communities and an industrial shoreline. Much of the drainages are urbanized and underground or otherwise concrete-lined, with notable exceptions such as Machado Lake. The Dominguez Channel is tidally influenced but is a man-made rip-rap or concrete-lined channel. Some vegetation occurs in localized drainages and some tributary drainages are being restored for wetland values. However, outside of the restoration areas and recreation features (such as Machado Lake), habitat values in this urban and industrial area are low. **Figure 3.3-2** provides photographs of typical drainages in the watershed.

3. **Northern Coastal EWMP Watersheds *(Malibu and Upper Santa Monica Bay)*** – These watersheds are characterized by dense residential development along the coast and less development and greater open space areas inland along the coast mountain range. Sensitive habitats in these areas are more prevalent than in the more urbanized watersheds, including coastal lagoons and dunes, streams and riparian habitats, and upland forests and scrub. Receiving waters in these watersheds remain unlined with significant riparian corridors. The developed areas have lower-density developments than in the Southern Coastal watersheds and are interspersed with canyons and creeks. The coastal streams provide important habitat for sensitive species, including arroyo toad, native fish, and avian species found in riparian forests. **Figure 3.3-3** provides photographs of typical drainages in the watershed.

4. **Upper Los Angeles River Watershed** – This watershed traverses a large diverse area of the Los Angeles Basin characterized by dense urbanization. The predominant urbanization results in limited biological value in the watershed. The natural hydrology of the Los Angeles River watershed has been altered by channelization and the construction of dams and flood control reservoirs. The Los Angeles River and many of its tributaries are lined with concrete for most or all of their length. Soft-bottomed segments of the Los Angeles River occur where groundwater upwelling prevents armoring of the river bottom. Numerous soft-bottom tributary streams feed into the river from the mountainous perimeter.

   Because of persistent dry-weather flows caused by irrigation run off and wastewater treatment plant discharges, vegetation within these drainages is common. The Los Angeles County Flood Control District routinely clears the vegetation from most of the vegetated drainages under permits from the U.S. Army Corps of Engineers (USACE) and California Department of Fish and Wildlife (CDFW). However, several stream segments exhibiting high-value habitats remain throughout this watershed, including Compton Creek and Bull Creek. When not cleared for flood control purposes, these areas can develop into substantial riparian habitats supporting sensitive species such as least Bell's vireo and southwest flycatcher as well as other diverse ecological communities. Lower in the watershed where perennial flows are substantial because of wastewater discharges, aquatic habitats occur that support waders, ducks, and gulls. **Figure 3.3-4** provides photographs of typical drainages in the watershed.

Typical concrete-lined Ballona Creek segment near Culver City.

Fresh water marsh in Playa Del Rey, adjacent to Ballona Creek.

SOURCE: ESA

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Figure 3.3-1
Typical Drainages in the
Southern Coastal EWMP Watersheds

Typical Dominguez Channel segment near Hawthorne.

Dominguez Channel wetlands near Long Beach.

SOURCE: ESA

LA County PEIR EWMP . 140474

Figure 3.3-2
Typical Drainages in the Dominguez Channel Watershed Management Areas

Malibu Lagoon.

Drainage at Marie Canyon Low-Flow Diversion.

SOURCE: ESA

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Figure 3.3-3
Typical Drainages in the
Northern Coastal EWMP Watersheds

Showing aquatic and riparian habitat in concrete channeled Los Angeles River, near the Los Angeles Zoo.

Showing riparian habitat in Bull Creek, near Van Norman Lakes Complex.

SOURCE: ESA

LA County PEIR EWMP . 140474

Figure 3.3-4
Typical Drainages in the
Upper Los Angeles River Watershed

5. **Upper San Gabriel and Rio Hondo and Watersheds** – These watersheds are characterized by high-density development in the lower watershed areas and lower-density development and open space in the upper watersheds in the San Gabriel Mountain foothills. Sensitive habitats in these areas range from sparse riparian areas and scrub within drainages in the urbanized lower watersheds to pristine mountain forests and riparian corridors the San Gabriel Mountains. The San Gabriel River and Rio Hondo are unlined in the upper watershed and convey controlled non-storm and storm flows to recharge basins and downstream sections of the river. Habitats within the soft-bottom river channels consist of chaparral and sage scrub with occasional riparian willow and sycamore riparian vegetation accustomed to long periods of dry weather with occasional ephemeral water flows. Upwelling of groundwater and dry-weather flows combine to support substantial riparian vegetation in the Whittier Narrows area. **Figure 3.3-5** provides photographs of typical drainages in the watershed.
6. **Upper Santa Clara River Watershed** – The Santa Clara River watershed is distinctive in that it is predominantly open space—nearly 90 percent of the watershed is open space with approximately 88 percent being undeveloped. The watershed contains one of the last remaining natural rivers in Southern California. In years of significant rainfall, ephemeral springs and year-round flows exist in some tributaries and natural upstream areas. The river is ephemeral in the upper watershed, experiencing groundwater-induced flows near Santa Clarita, and then wastewater treatment discharges create a perennial flow from Valencia to the Ventura County border. Habitat values in these areas are high, including extremely rare habitat for aquatic resources such as the three-spined stickleback, Santa Ana sucker, and arroyo toad. **Figure 3.3-6** provides photographs of typical drainages in the watershed.

Sensitive Habitats

The California Natural Diversity Database (CNDDB), managed by CDFW, identifies 20 natural communities of special management concern within the broad-ranging EWMP areas, as shown below. **Appendix D** contains a description of each of these habitats and **Figure 3.3-7** depicts their locations throughout the EWMP areas.

- California Walnut Woodland
- Canyon Live Oak Ravine Forest
- Mainland Cherry Forest
- Open Engelmann Oak Woodland
- Riversidean Alluvial Fan Sage Scrub
- Southern California Arroyo Chub/ Santa Ana Sucker Stream
- Southern California Coastal Lagoon
- Southern California Steelhead Stream
- Southern Coast Live Oak Riparian Forest,
- Southern California Threespine Stickleback Stream
- Southern Coastal Bluff Scrub
- Southern Coastal Salt Marsh
- Southern Cottonwood Willow Riparian Forest
- Southern Dune Scrub
- Southern Mixed Riparian Forest
- Southern Riparian Scrub
- Southern Sycamore Alder Riparian Woodland
- Southern Willow Scrub
- Valley Oak Woodland
- Walnut Forest

Typical Upper San Gabriel River landscape.

Drainage in Whittier Narrows, showing aquatic and riparian habitats.

SOURCE: ESA

LA County PEIR EWMP . 140474

Figure 3.3-5
Typical Drainages in the Upper San Gabriel and Rio Hondo Watersheds

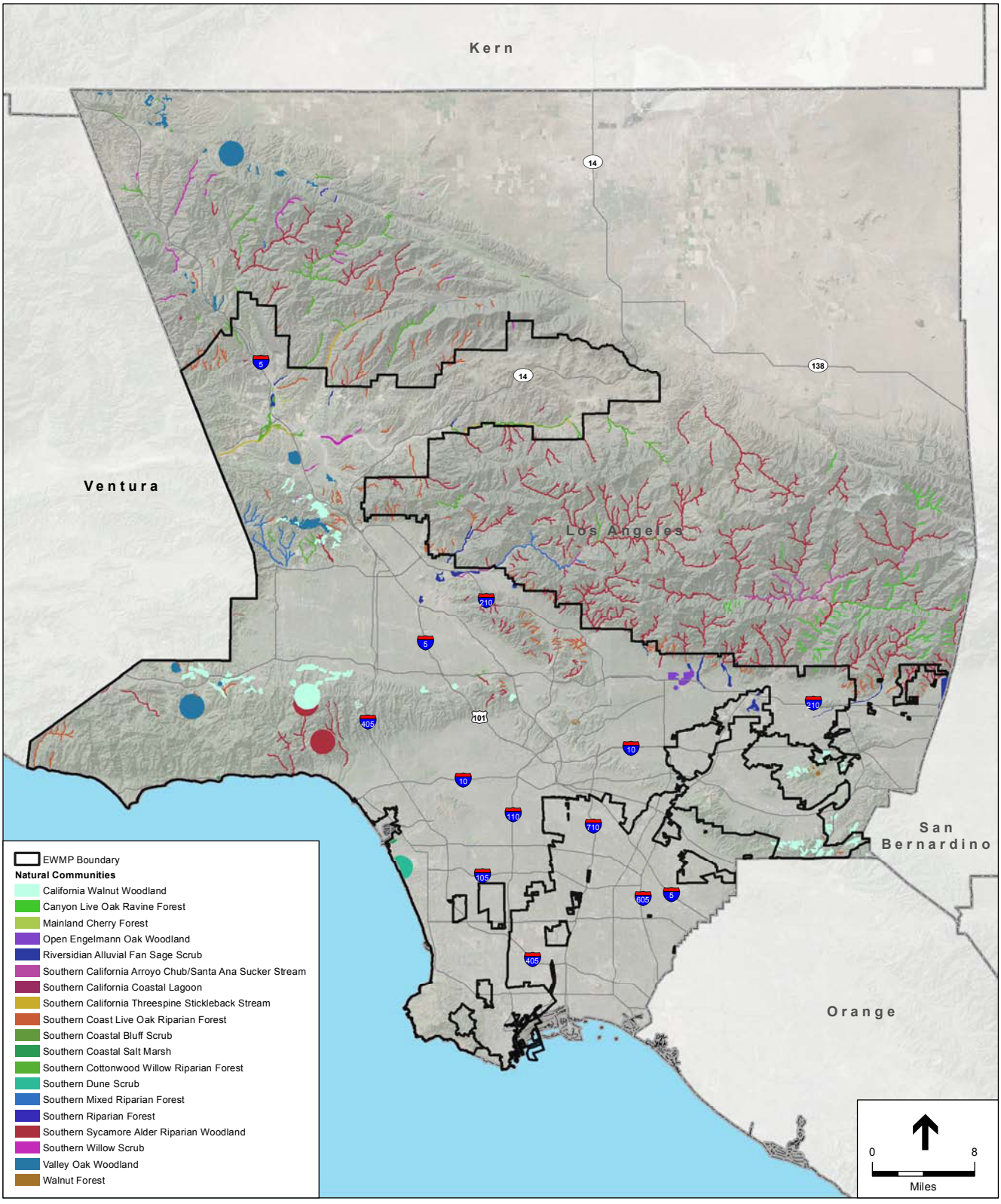
Unlined river channel showing riparian habitat in Upper Santa Clara River.

Typical riparian and aquatic habitat in Upper Santa Clara River.

SOURCE: ESA

LA County PEIR EWMP . 140474

Figure 3.3-6
Typical Drainages in the
Upper Santa Clara River Watershed



SOURCE: ESRI; California Natural Diversity Database (CNDDB), 2014.

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Figure 3.3-7

Natural Communities

Special-Status Species

Special-status species are those plants and animals that, because of their recognized rarity or vulnerability to habitat loss or population decline, are recognized by federal, state, or other agencies. Some of these species receive specific protection that is defined by federal or state endangered species legislation. Others have been designated as "sensitive" on the basis of adopted policies and expertise of state resource agencies or organizations with acknowledged expertise, or policies adopted by local governmental agencies such as counties, cities, and special districts to meet local conservation objectives. These species are referred to collectively as "special-status species" and include the following categories:

- Plants or animals listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (FESA) (50 Code of Federal regulations [CFR] 17.12 [listed plants], 17.11 [listed animals] and various notices in the Federal Register [FR] [proposed species])
- Plants or animals that are candidates for possible future listing as threatened or endangered under FESA (61 FR 40, February 28, 1996)
- Plants or animals listed or proposed for listing by the State of California (State) as threatened or endangered under the California Endangered Species Act (CESA) (14 California Code of Regulations [CCR] 670.5)
- Plants listed as rare or endangered under the California Native Plant Protection Act (California Fish and Game Code, Section 1900 et seq.)
- Plants that meet the definitions of rare and endangered under the California Environmental Quality Act (CEQA) (CEQA Guidelines Section 15380)
- Plants considered under the California Native Plant Society (CNPS) to be "rare, threatened or endangered in California" (Lists 1A, 1B, and 2 in CNPS 2014)
- Plants listed by CNPS as plants about which more information is needed to determine their status and plants of limited distribution (Lists 3 and 4 in CNPS 2014), which may be included as special-status species on the basis of local significance or recent biological information
- Animals fully protected in California (California Fish and Game Code, Sections 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians])
- Plants or animals covered by a locally or state adopted species conservation plan, including sensitive plants and animals and narrow endemic plants that have reasonable potential to occur on-site

The database search yielded 72 plant species and 83 wildlife species within the EWMP area and immediate vicinity (CNDDB 2014). Special-status species are typically supported by native upland and riparian habitats, but they can also inhabit disturbed and urbanized areas. **Appendix E** contains a list of special-status species found within the combined EWMP areas and a figure that depicts their locations.

Wildlife Movement

Habitat linkages are contiguous areas of open space that connect two larger habitat areas. Linkages provide for both diffusion and dispersal for a variety of species within the landscape. In addition, linkages can serve as primary habitat for some smaller species. Corridors are linear linkages between two or more habitat patches. Corridors provide for movement and dispersal, but do not necessarily include habitat capable of supporting all life history requirements of a species.

Wildlife movement corridors are critical for the survivorship of ecological systems for several reasons. Corridors can connect water, food, and cover sources, spatially linking these three resources with wildlife in different areas. In addition, wildlife movement between habitat areas provides for the potential of genetic exchange between wildlife species populations, thereby maintaining genetic variability and adaptability to maximize the success of wildlife responses to changing environmental conditions. This is especially critical for small populations subject to loss of variability from genetic drift and effects of inbreeding. The nature of corridor use and wildlife movement patterns varies greatly among species.

Jurisdictional Resources

Wetlands and permanent and intermittent drainages, creeks, and streams identified as waters of the United States are subject to the jurisdiction of USACE and Regional Water Quality Control Board (RWQCB) under Section 404 and Section 401, respectively, of the Federal Clean Water Act. All of the rivers and flood control drainages that flow to the ocean within the EWMP area are within the jurisdiction of these agencies.

Streambeds are subject to regulation by the CDFW under Section 1602 of the California Fish and Game Code. A stream is defined under these regulations as a body of water that flows at least periodically or intermittently through a bed or channel having banks and that supports fish or other aquatic life. This definition includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation. CDFW jurisdiction typically extends to the edge of the riparian vegetation canopy.

3.3.2 Regulatory Setting

Federal

Federal Endangered Species Act

The U.S. Fish and Wildlife Service (USFWS) administers the federal Endangered Species Act (FESA) that provides a process for listing species as either threatened or endangered, and methods of protecting listed species. Species are listed as either endangered or threatened under Section 4 of the FESA that defines “endangered” as any plant or animal species that is in danger of extinction throughout all or a significant portion of its range and “threatened” if a species is likely to become endangered in the foreseeable future. Section 9 of the FESA prohibits take of listed threatened or endangered species. Except as provided in Sections 7 and 10 of the FESA, take of listed threatened or endangered species is prohibited. The term “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct. Harm under the definition of take includes disturbance or loss of habitats used by a

threatened or endangered species during any portion of its life history. Under the regulations of the FESA, the USFWS may authorize take when it is incidental to, but not the purpose of, an otherwise lawful act.

Pursuant to the FESA, USFWS and National Marine Fisheries Service (NMFS) have designated critical habitat for several endangered and threatened species within Los Angeles County. Critical habitat is identified as a specific geographic area that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. Critical habitat may include an area that is not currently occupied by the species but that will be needed for its recovery (USFWS, 2014a). **Figure 3.3-8** identifies federally designated critical habitats in the County.

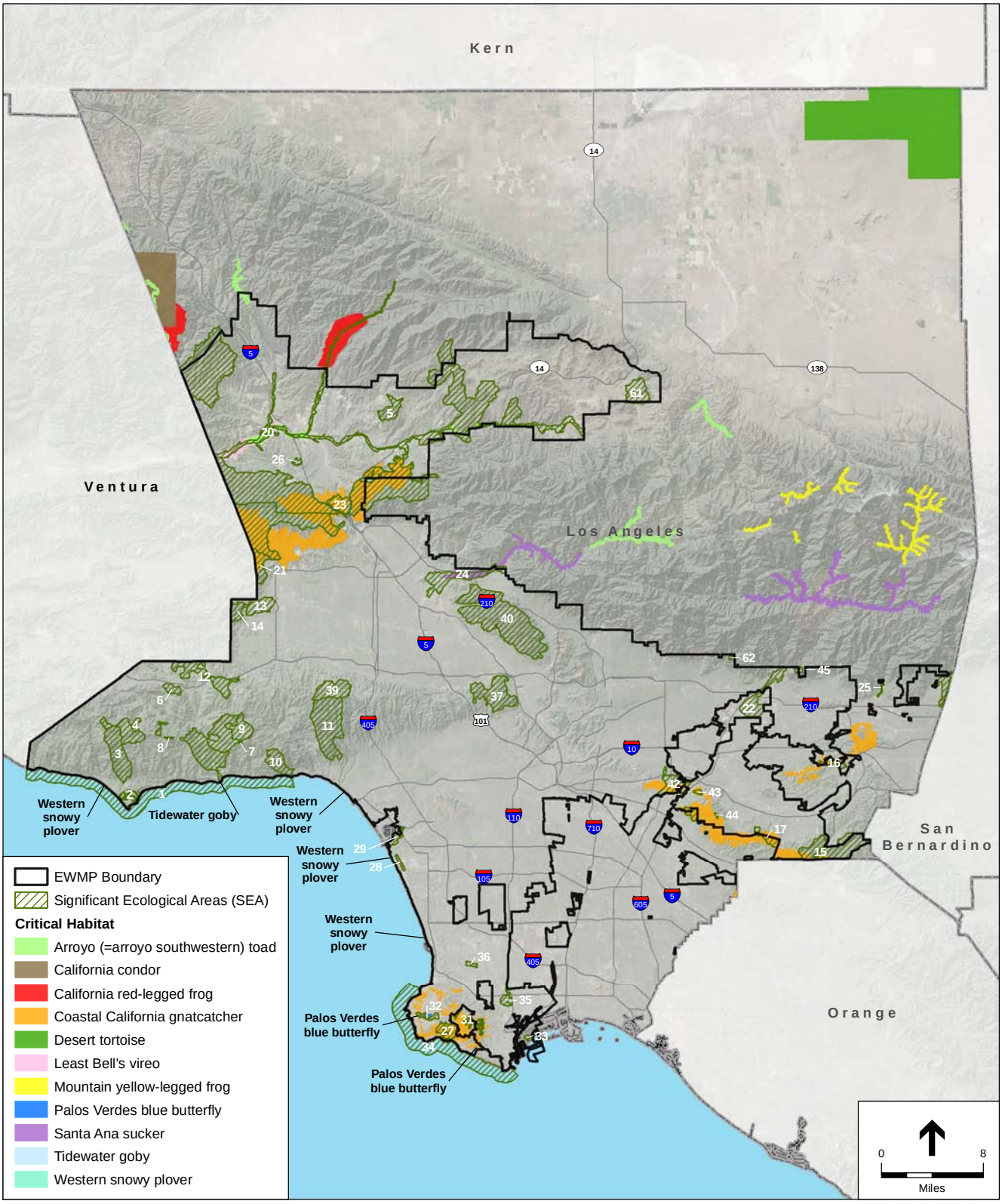
Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711) makes it unlawful to possess, buy, sell, purchase, barter or take any migratory bird listed in Title 50 of the Code of Federal Regulations Part 10. Take in the context of the MBTA is the possession or destruction of migratory birds, their nests or eggs. Disturbances that causes nest abandonment and/or loss of reproductive effort or the loss of habitats upon which these birds depend would be in violation of the MBTA.

Although impacts to migratory birds are highly unlikely because of the disturbed nature of the proposed project's site locations, the applicant will be required to either avoid impacts to migratory birds and their nests, or to obtain a permit from the USFWS providing for the take of a migratory bird. Should the nesting of any migratory bird occur on or adjacent to the project site during grading or construction activities, a USFWS-qualified biological monitor would have the authority to halt all work activities and notify the city and corresponding resource agency.

Clean Water Act Section 404

Wetlands are generally considered to be areas that are periodically or permanently inundated by surface or ground water and support vegetation adapted to life in saturated soil. Wetlands are recognized as important features on a regional and national level because of their high inherent value to fish and wildlife, use as storage areas for stormwater and floodwater, and water recharge, filtration, and purification functions. Technical standards for delineating wetlands have been developed USACE which generally define wetlands through consideration of three criteria: hydrology, soils, and vegetation. Under Section 404 of the Clean Water Act (CWA), USACE is responsible for regulating the discharge of dredged or fill material into waters of the United States. The term "waters" includes wetlands and non-wetland bodies of water that meet specific criteria as defined in the Code of Federal Regulations. All three of the identified technical parameters (hydrology, soils, and vegetation) must be met for an area to be identified as a wetland under USACE's CWA Section 404 jurisdiction, unless the area has been modified by human activity. In general, a permit must be obtained before the discharge of dredged or fill material can be placed in wetlands or other waters of the United States. USACE, at its discretion, issues several types of permits (Nationwide, Individual, or General) depending on the acreage and purpose of discharge of fill or dredged material into waters of the United States.



SOURCE: ESRI; Los Angeles County GIS; FWS, 2014.

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Figure 3.3-8

Los Angeles County Significant Ecological Areas and Critical Habitat

State

California Endangered Species Act

The CDFW administers the CESA. The State of California considers an endangered species one whose prospects of survival and reproduction are in immediate jeopardy. A threatened species is one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the absence of special protection or management. And a rare plant species is one present in such small numbers throughout its range that it may become endangered if its present environment worsens. Except as provided in CESA Section 2081, State threatened, endangered, and candidate species are protected against take, which under the CESA is restricted to direct killing or harm of individual animals and does not apply to the loss of habitat as it does under FESA.

Clean Water Act Section 401 Certification or Waiver, and State Discharge Permit under the Porter-Cologne Act

The State of California regulates water quality related to discharge of fill material into waters of the State pursuant to Section 401 of the CWA. Section 401 compliance is a federal mandate regulated by the State. The local RWQCBs have jurisdiction over all those areas defined as jurisdictional under Section 404 of the CWA. Where a 404 permit is required, a 401 water quality certification from the RWQCB is also required.

In addition, the State regulates water quality for all waters of the State, that may also include isolated wetlands as defined under the California Porter-Cologne Water Quality Control Act (Porter Cologne; Ca. Water Code, Div. 7, Section 13000 et seq.). The State 401 Certification Program regulates all discharges that can affect water quality, even if there is no significant nexus to a traditional navigable water body required for USACE determination of jurisdiction over waters of the United States. In such instances, a Waste Discharge Permit is required even though federal CWA Section 401 water quality certification or 404 permits are not required.

Section 1602 Lake and Streambed Alteration Agreement

Jurisdictional authority of the CDFW over the bed, bank, or channel of a river, stream, or lake is established under Section 1600 et seq. of the Fish and Game Code, which pertains to activities that would disrupt the natural flow or alter the channel, bed, or bank of any lake, river, or stream. The Fish and Game Code stipulates that it is unlawful to substantially divert or obstruct the natural flow or substantially change the bed, channel or bank of any river, stream, or lake resulting in a substantial effect on a fish or wildlife resource without notifying the CDFW and completing the Streambed Alteration Agreement process.

Fish and Game Code of California

All birds, and raptors specifically, and their nests, eggs, and parts thereof are protected under Sections 3503.5 of the Fish and Game Code of California. Disturbance that causes nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young) is considered a violation of this code. Additionally Section 3513 prohibits the take or possession of any migratory nongame bird listed by the MBTA.

Non-Listed Species Management and Conservation Concerns

Species of Special Concern is an informal designation used by CDFW for some declining wildlife species that are not proposed for listing as threatened or endangered. This designation does not provide legal protection, but signifies that these species are recognized as declining by CDFW.

The CNPS has developed an inventory of California's sensitive plant species. This inventory summarizes information on the distribution, rarity, and endangerment of California's vascular plants. The inventory is divided into four lists based on the rarity of the species. In addition, the CNPS provides an inventory of plant communities that are considered natural communities of special concern by the State and federal resource agencies, academic institutions, and various conservation groups. The determination of the level of significance of impacts on plant species and natural communities is based on the number and size of remaining occurrences as well as recognized threats.

Natural communities of special concern are those that support concentrations of special-status plant or wildlife species, are of relatively limited distribution, or are of particular value to wildlife. Natural communities of special concern are not afforded legal protection unless they are designated critical habitat for federally listed threatened or endangered species, support formally listed species, or are jurisdictional wetland habitats.

Local

Los Angeles County Significant Ecological Areas

As part of the General Plan Conservation/Open Space and Land Use elements, the County has identified and adopted policies for Significant Ecological Areas (SEAs). The purpose of establishing a SEA is to maintain biological diversity by establishing natural biological parameters, including species, habitat types, and linkages. The County General Plan includes recommended management practices for each SEA. Forty-eight SEAs fall within the EWMP area, as shown in Figure 3.3-7.

Santa Monica Mountains Conservancy

The Santa Monica Mountains Conservancy was established by the California State Legislature in 1980. The Conservancy's mission is to preserve and restore natural habitats in Southern California to form an interlinking system of parks and wildlife habitats that are easily accessible to the general public. The Conservancy's Comprehensive Plan outlines conservation priorities and recreational opportunities in the Santa Monica Mountains. Development projects in the Santa Monica Mountains area subject to review by the County for consistency with the Comprehensive Plan.

Los Angeles County Oak Tree Ordinance and City Tree Preservation Ordinances

Title 22, Part 16, of the Los Angeles County Code of Ordinances is the Oak Tree Ordinance. The ordinance was established to recognize oak trees within the County as a historical, aesthetic, and ecological resource. The ordinance applies to all unincorporated areas of the County. Several cities within the County may have adopted this or a similar ordinance. The Los Angeles County

ordinance, in particular, prohibits a person to "cut, destroy, remove, relocate, inflict damage, or encroach into the protected zone of any tree of the oak genus" that is 8 inches or more in diameter. Other city ordinances, such as the City of Los Angeles, may protect other tree species in addition to oaks.

Los Angeles County Oak Woodland Management Plan

Los Angeles County adopted a California Oak Woodlands Conservation Management Plan pursuant to the requirements of Assembly Bill (AB) 242 in 2011. The Los Angeles County Oak Woodlands Conservation Management Plan provides consistent policy for the management of oak woodlands that can be incorporated into the Los Angeles County General Plan and other relevant planning documents, developing a comprehensive and cohesive strategy for dealing with loss, and creating opportunities for recovering oak woodlands.

3.3.3 Impact Assessment

Thresholds of Significance

To determine the level of significance of an identified impact, the criteria outlined in the CEQA Guidelines were used. CEQA Guidelines Section 15065 directs lead agencies to find that a project may have a significant effect on the environment if it has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory. CEQA Guidelines Section 15206 further specifies that a project shall be deemed to be of statewide, regional, or area-wide significance if it would substantially affect sensitive wildlife habitats including, but not limited to, riparian lands, wetlands, bays, estuaries, marshes, and habitats for rare and endangered species as defined by the Fish and Game Code Section 903. CEQA Guidelines Section 15380 provides that a plant or animal species, even if not on one of the official lists, may be treated as "rare or endangered" if, for example, it is likely to become endangered in the foreseeable future. Additional criteria to assess significant impacts to biological resources due to the proposed project are specified in CEQA Guidelines Section 15382 (Significant Effect on the Environment) "*…a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance*."

Appendix G of the CEQA Guidelines indicates that a project would have a significant impact on biological resources if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFG or USFWS.

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

Project Impact Discussion

Impact 3.3-1: The proposed project could have a substantial adverse effect, either directly or through habitat modifications, on any sensitive species identified as special-status in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

Structural (Regional, Centralized, and Distributed) BMPs

Construction

Construction of structural Best Management Practices (BMPs) would occur primarily within high-density urban, commercial, industrial, and transportation areas where they will either replace or improve upon existing stormwater infrastructure. Construction typically requires the permanent removal of aboveground infrastructure and/or surface materials such as asphalt and concrete, as well as excavation and grading for projects on soil-covered sites. The majority of the construction impact area would occur within developed and disturbed areas adjacent to existing infrastructure that do not support native vegetation or undisturbed habitat. However, since most of the BMPs would be located in existing drainages, each individual BMP could affect riparian vegetation during installation. Most of the smaller BMPs would avoid impacting high-value habitats during construction. Upland scrubs and native oak forests would be only incidentally affected if at all. In stream effects could occur to riparian scrub and aquatic habitats.

Construction of structural BMPs, regional and centralized BMPs in particular, may affect large open space or riparian habitats that would have a higher potential to support special-status wildlife species. For example, centralized BMPs include the construction of stream/creek restoration projects and low-flow diversion (LFD) projects which may require working within or adjacent to sensitive communities (i.e., streams or wetlands) that could support special-status wildlife species. Large projects could affect upland scrub or oak woodlands. **Mitigation Measure BIO-1** requires that implementing agencies evaluate the suitability of potential BMP sites for their potential to impact valued habitats such as oak woodland and riparian willow forests.

Common and protected migratory birds and raptors are likely to nest or forage in habitats found within the EWMP area. Implementation of the structural BMPs may result in temporary or permanent loss of foraging habitat for migratory birds, including raptor species. Similarly,

proposed construction activities could impact nesting birds or roosting bats. Potential bat roost sites in the vicinity of the project areas may include abandoned structures and bridges.

Mitigation Measures BIO-2 through **BIO-8** require impact characterization, minimization and compensation for impacts to highly valued habitats in consultation with the USFWS and CDFW. Implementation of mitigation measures requiring careful consideration of suitable sites would reduce impacts to natural habitats on a regional scale to less-than-significant levels.

Operation

Maintenance of BMPs may involve accessing drainages through habitat areas or clearing vegetation. If BMPs require routine maintenance that affects habitat, those activities would need to be conducted in the non-bird nesting season to avoid impacts to nesting birds where feasible. Since drainages are within the CDFW jurisdiction, any vegetation-clearing activities would be subject to permits from CDFW as well as potentially the Los Angeles RWQCB and USACE. These permits would include provisions to avoid and mitigate impacts to sensitive habitats and species. Adherence to these conditions of approval would ensure that impacts to natural resources from maintenance would be less than significant.

BMPs designed to retain peak storm flows including regional BMPs would have no impact on downstream biological resources, since peak storm flows do not support perennial vegetation. The natural hydrology of the region experiences ephemeral flows that respond to seasonal precipitation, conveying water from the upper watersheds to the lower watersheds quickly. Urbanization has increased the speed of water flows through the system. The BMPs are designed to slow water flows and return to a hydrology closer to predevelopment conditions.

However, some drainages have developed new perennial flow regimes that support vegetation as a result of landscape runoff or wastewater discharges. Some of this vegetation may support special-status species including least Bell's vireo or southwest willow flycatcher, particularly in suburban areas. If BMPs designed to retain dry-weather flows reduced the wetted area of drainages or completely eliminated flows in certain drainages that support riparian habitat, impacts to sensitive species would be significant.

This potential effect is most likely to occur within suburban areas, which are more prevalent in the Santa Clara River watershed, Malibu watershed, and San Gabriel watershed. The more urbanized watersheds in the southern coastal areas, such as Dominguez Channel and Ballona Creek, would be less likely to experience impacts to riparian vegetation from low-flow retention, with some noted exceptions such as the Ballona wetlands.

The primary threat to the local ecology in Los Angeles County is urban development. Returning the local hydrology to a more natural condition would occur over time and would result in improved natural habitat functions with little direct impact to protected sensitive species. Although riparian habitat may flourish in certain urban drainages, the vegetation is often a nuisance. Many soft-bottom channels are periodically cleared of vegetation by the Los Angeles County Flood Control District under a permit from the USFWS and CDFW that requires compensation elsewhere in the watershed. The reduction in perennial flows in most channels may

result in less "choking" of flood control channels with nuisance vegetation, resulting in flood control benefits.

Furthermore, in many cases, it is difficult to attribute the health and extent of a wetted area supporting vegetation to specific Municipal Separate Storm Sewer System (MS4) discharge points. Individual BMP installation may reduce flows, but not eliminate wetted areas supporting certain habitat areas, resulting in no immediate observed reduction in riparian cover.

Over time, the addition of BMPs into suburban watersheds may reduce vegetation within certain drainages slowly as the cumulative effects of multiple BMPs combine to limit dry-weather flows. The gradual reduction in habitat would allow sensitive species to adapt to the changing conditions, particularly avian species such as least Bell's vireo would relocate to other nesting areas as conditions change. This is not dissimilar to natural conditions where riparian areas change over time with large flood flows. Although this gradual decrease in dry-weather flows in the region may reduce riparian vegetation in certain locations, the overall reduction is not expected to be significant, since the high-value habitats are limited and largely dependent on groundwater or wastewater treatment discharges.

Nonetheless, to ensure that impacts to downstream biological resources are less than significant, **Mitigation Measure BIO-1** requires that implementing agencies evaluate the potential direct impacts that could result from dry-weather flow reduction to downstream habitats. These conditions may be most prevalent in the Santa Clara River watershed, Malibu Watershed, the Upper Los Angeles River Watershed, and San Gabriel River Watershed where suburban landscape irrigation runoff has created isolated patches of riparian vegetation. **Mitigation Measures BIO-2** and **BIO-4** would require consultation with the wildlife agencies if flow reduction resulted in significant downstream habitat impacts. However, on a regional scale, a return to a more natural hydrology is not expected to significantly reduce the prevalence of high-value habitats or their use by sensitive species in the County. With implementation of Mitigation Measures BIO-1, BIO-2 and BIO-4, impacts to riparian vegetation from flow retention would be less than significant.

Future project-level environmental review processes will consider proposed projects as necessary to determine project-level impacts on special-status wildlife species and will require the implementation of project-specific mitigation measures to minimize and reduce potentially significant impacts to special-status wildlife species. Where potentially significant impacts to biological resources are identified for individual projects, implementation of Mitigation Measures BIO-1 through BIO-8 would avoid or reduce the impact to a less than significant level.

Summary of EWMP Groups

The following discussion provides additional detail to each of the watershed groups:

Southern Coastal EWMP Watersheds *(Beach Cites, Southern Santa Monica Bay, Peninsula, Marine del Rey, Ballona)* – Few direct impacts to biological resources from construction would be expected in these watersheds since the drainages are largely channelized. Large-scale lagoon restoration projects would temporarily affect habitats within the construction zones, but the

objective of these projects is to enhance biological functions. Otherwise, the urbanized drainages in these areas exhibit low-quality habitats and any work on the beach that could affect sensitive avian species would be minimal.

LFDs and dry-weather flow retention in this EWMP area would result in less fresh water reaching the tidal areas than is currently the case. However, at the lower end of the watershed, impacts to riparian and aquatic resources would be minimal since the areas are highly urbanized and the drainages are channelized with low habitat value. An exception to this is the Ballona freshwater marsh. Reduction in dry-weather flows to the coastal lagoons would reduce pollutant loading from the watershed and as a result improve water quality and native habitat values compared to existing conditions. In the upper portion of the watersheds, the reduction of perennial flows in drainages could affect urban-influenced low-value habitats. However, if these habitats were of sufficient value to support least Bell's vireo or other sensitive species, mitigation may be required. Implementation of mitigation measures BIO-1 through BIO-8 would reduce impacts to less-than-significant levels.

Northern Coastal EWMP Watersheds *(Malibu and Upper Santa Monica Bay)* – Installation of structural BMPs within drainages could affect existing habitats and sensitive species, particularly in the upper drainages that are largely undeveloped and exhibit high habitat values. Implementation of mitigation measures BIO-1 through BIO-8 would ensure that implementing agencies identify potentially affected resources and implement measures to avoid or reduce impacts to less-than-significant levels. Once installed, the modification to the hydrology created by the BMPs would more closely resemble historical conditions.

LFDs in the upper watersheds would return local coastal creeks to conditions resembling pre-urbanization. Native habitats along the coast have adapted to the climatological conditions and would continue to thrive with implementation of dry-weather-flow diversions and flow retention. However, in some localized areas, flow diversions could affect downstream riparian and aquatic habitat, reducing fresh water flow and wetted areas inhabited by willow forests. However, much of the high-value riparian and aquatic habitats in the upper coastal watershed that support sensitive birds and fish are fed from natural seepage. Infiltration BMPs would augment seepage and would serve to expand wetted areas supporting riparian and wetland habitats. Implementation of mitigation measures BIO-1 through BIO-8 would reduce impacts to less-than-significant levels.

Upper San Gabriel and Rio Hondo and Watersheds – Installation of structural BMPs in the upper San Gabriel and Rio Hondo watersheds have the potential to impact riparian and in-channel scrub habitats. The larger rivers are dry most of the year and habitat is adapted to the ephemeral cycle. If construction activities were to occur in an area exhibiting native vegetation, implementing agencies would need to implement measures to avoid, reduce, or compensate for significant impacts. Implementation of mitigation measures BIO-1 through BIO-8 would ensure that implementing agencies identify potentially affected resources and implement measures to avoid or reduce impacts to less-than-significant levels.

Upper Los Angeles River Watershed – The Upper Los Angeles River watershed is large and exhibits a large variety of habitats within drainages and within surrounding uplands and mountains. If construction activities were to occur in an area exhibiting native vegetation, implementing agencies would need to implement measures to avoid, reduce, or compensate for significant impacts. However, these construction effects would be temporary and would not result in significant reduction in habitat values within the watershed.

LFDs and retention in this highly urbanized watershed could result in substantial modifications to hydrologic conditions in the smaller channels and streams. Much of the higher value habitat occurs on the perimeter of the watershed and would not be affected by the BMPs. However, the vegetated channels in the mid and lower portions of the watershed could be cut off from perennial flows, resulting in a reduction of wetted area and associated habitat. Implementation of mitigation measures BIO-1 through BIO-8 would ensure that implementing agencies identify potentially affected resources and implement measures to avoid or reduce impacts to less-than-significant levels.

Dominguez Channel Watershed – These watersheds are highly urbanized, supporting little native vegetation. What vegetation does exist is associated with either the tidal channel or urban runoff. Construction within these areas would not encounter high-value upland, riparian, or aquatic habitats. Implementation of mitigation measures would ensure that impacts to habitat values would be less than significant.

Low-flow and dry-weather-flow retention in the Dominguez Channel watershed would not result in significant impacts to riparian or aquatic habitats downstream since very few high-value habitats exist in the watershed. One exception to this is Machado Lake, which relies on freshwater flows to maintain vegetation. However, returning the local hydrology to a more natural condition would result in less-than-significant impacts to biological resources.

Upper Santa Clara River Watershed – The Santa Clara River watershed exhibits the most open space and high-value riparian habitats of all the EWMP groups. Construction of structural BMPs could impact upland forests, scrub, riparian and aquatic habitats. If construction activities were to occur in an area exhibiting native vegetation, implementing agencies would need to implement measures to avoid, reduce, or compensate for significant impacts. In addition mitigation measure BIO-1 requires that implementing agencies evaluate the suitability of BMP locations prior to development in order to avoid impacts to sensitive habitats.

LFDs and dry-weather-flow retention may affect areas downstream of urbanized areas. However, the Upper Santa Clara River is ephemeral and generally dry upstream of the wastewater discharges. Furthermore, the stream is a gaining stream below the urbanized area, responding to rising groundwater levels. Any retention of dry-weather flow would have only minor effects on the aquatic or riparian habitats in tributary streams and no impacts to the Santa Clara River itself. In fact, increased underflow into the riverbed from groundwater would benefit the riparian and aquatic habitats. In addition, implementing agencies would be required to evaluate potential impacts from flow retention BMPs. Implementation of mitigation measures would ensure that impacts are less than significant.

Summary of Impact

BMPs designed to retain dry-weather flows could reduce wetted area or completely eliminate flows in certain drainages that support sensitive species. To ensure that impacts to downstream biological resources are less than significant for regional and centralized BMPs, Permittees would implement **Mitigation Measures BIO-1** through **BIO-8** which provide for the identification and minimization of potential effects. As a result, impacts to sensitive species resulting from the implementation the EWMPs would be less than significant. The smaller distributed BMPs would not result in significant impacts and would not be required to implement mitigation measures.

Mitigation Measures

BIO-1: Prior to approving a regional or centralized BMP, the Permittee shall conduct an evaluation of the suitability of the BMP location. Appropriate BMP sites should avoid impacting large areas of native habitats including upland woodlands and riparian forests that support sensitive species to the extent feasible. The evaluation shall include an assessment of potential downstream impacts resulting from flow diversions.

BIO-2: Prior to ground-disturbing activities in areas that could support sensitive biological resources, a habitat assessment shall be conducted by a qualified biologist to determine the potential for special-status wildlife species to occur within affected areas, including areas directly or indirectly impacted by construction or operation of the BMPs.

BIO-3: If a special-status wildlife species is determined to be present or potentially present within the limits of construction activities, a qualified biologist shall conduct preconstruction surveys of proposed work zones and within an appropriately sized buffer around each area as determined by a qualified biologist within 14 days prior to ground disturbing activities. Any potential habitat capable of supporting a special-status wildlife species shall be flagged for avoidance if feasible.

BIO-4: If avoidance of special-status species or sensitive habitats that could support special-status species (including, but not limited to, critical habitat, riparian habitat, and jurisdictional wetlands/waters) is not feasible, the Permittee shall consult with the appropriate regulating agency (USACE/USFWS or CDFW) to determine a strategy for compliance with the Endangered Species Act, California Fish and Game Code, and other regulations protecting special-status species and sensitive habitats. The Permittee shall identify appropriate impact minimization measures and compensation for permanent impacts to sensitive habitats and species in consultation with regulatory agencies. Construction of the project will not begin until the appropriate permits from the regulatory agencies are approved.

BIO-5: If construction and vegetation removal is proposed between February 1 and August 31, a qualified biologist shall conduct a pre-construction survey for breeding and nesting birds and raptors within 500-feet of the construction limits to determine and map the location and extent of breeding birds that could be affected by the project. Active nest sites located during the pre-construction surveys shall be avoided until the adults and young are no longer reliant on the nest site for survival as determined by a qualified biologist.

BIO-6: All construction areas, staging areas, and right-of-ways shall be staked, flagged, fenced, or otherwise clearly delineated to restrict the limits of construction to the minimum necessary near areas that may support special-status wildlife species as determined by a qualified biologist.

BIO-7: Prior to construction in areas that could support special-status plants, a qualified botanist shall conduct a pre-construction floristic inventory and focused rare plant survey of project areas to determine and map the location and extent of special-status plant species populations within disturbance areas. This survey shall occur during the typical blooming periods of special-status plants with the potential to occur. The plant survey shall follow the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (November 24, 2009).

BIO-8: If temporary construction-related impacts to special-status plant populations are identified within a disturbance area, the implementing agencies shall prepare and implement a special-status species salvage and replanting plan. The salvage and replanting plan shall include measures to salvage, replant, and monitor the disturbance area until native vegetation is re-established under the direction of CDFW and USFWS.

Significance Determination: Less than significant with mitigation. (The application of these mitigation measures to specific BMP types and categories are identified in Table 3.3-1.)

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, there would be no direct impacts to special-status species or their habitats. However, many of the non-structural BMPs would result in the reduction of dry-weather urban runoff that could reduce perennial flows in local drainages. Returning the local hydrology to a more natural condition would occur overtime and would reduce overall wetted areas within minor drainages and swales throughout the region. Local riparian and lake features that rely on urban runoff could gradually shift from riparian and marsh to upland and sparse riparian. Shorelines may shift and wetted areas may decrease over time as more water is retained in the upper watershed, but these changes would not significantly degrade biological resources in the region as a whole since the revised hydrology would be a more natural condition for the arid region. Groundwater seepage would continue to support the major riparian corridors in the Malibu, Santa Clara, Upper Los Angeles, and San Gabriel watersheds. Retention of flows in the upper watershed would even augment these groundwater resources, offsetting any impacts from surface flow reductions. Moreover, improved water quality in the region's drainages and lagoons would be beneficial to habitat health. Overall, implementation of non-structural BMPs will not significantly impact sensitive species in the EWMP areas.

Mitigation Measures: None required

Significance Determination: Less than significant

Riparian Habitat or Other Sensitive Natural Communities

Impact 3.3-2: The proposed project could have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS.

Structural (Regional, Centralized, and Distributed) BMPs

As previously discussed, 20 sensitive natural communities tracked by the CNDDB occur within the EWMP area. In addition, Significant Ecological Areas are considered sensitive natural communities as identified by the Los Angeles County General Plan. The SEAs, riparian and other sensitive communities (which include riparian habitats such as Southern Cottonwood Willow Riparian Forest) are not expected to occur within the disturbance areas of the BMP projects since the majority of the structural BMPs would occur in developed or disturbed areas. While some regional and centralized structural BMPs (i.e., floodplain management and stream restoration projects) could occur within or adjacent to SEAs, riparian habitat or other sensitive natural communities, these types of BMPs would provide multi-beneficial water quality and habitat restoration improvements to the applicable EWMP watershed. Further, each development proposed within a designated SEA must undergo a performance review process for compliance with the SEA design compatibility criteria and other standards for approval by the Los Angeles County Department of Regional Planning (County of Los Angeles 2012).

In addition, future project-level environmental review processes would consider all proposed projects on a case-by-case basis to determine whether an individual project would impact riparian or other sensitive natural communities and where it is necessary, would require the implementation of site-specific mitigation measures to minimize and reduce potentially significant impacts to riparian and other sensitive natural communities. Impacts would be reduced to less-than-significant levels with the implementation of Mitigation Measures BIO-1 through BIO-8.

> **Mitigation Measures:** Implement Mitigation Measures BIO-1 and BIO-8.
>
> **Significance Determination:** Less than significant with mitigation. (The application of these mitigation measures to specific BMP types and categories are identified in Table 3.3-1.)

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, there would be no impacts to riparian or other sensitive natural communities from construction. However, many of the non-structural BMPs would result in the reduction of dry-weather urban runoff that could reduce perennial flows in local drainages. Returning the local hydrology to a more natural condition would occur overtime and would reduce overall wetted areas within minor drainages and swales throughout the region. Local riparian and lake features that rely on urban runoff could gradually shift from riparian and marsh to upland and sparse riparian. Shorelines may shift and wetted areas may decrease over time as more water is retained in the upper watershed, but these changes would not significantly degrade biological resources in the region as a whole since the revised hydrology

would be a more natural condition for the arid region. Groundwater seepage would continue to support the major riparian corridors in the Malibu, Santa Clara, Upper Los Angeles, and San Gabriel watersheds. Retention of flows in the upper watershed would even augment these groundwater resources, offsetting any impacts from surface flow reductions. Moreover, improved water quality in the region's drainages and lagoons would be beneficial to habitat health. Overall, implementation of non-structural BMPs will not significantly impact riparian habitat or other sensitive natural communities in the EWMP areas.

Mitigation Measures: None required

Significance Determination: No impact

Wetland Habitats

Impact 3.3-3: The proposed project could have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Structural (Regional, Centralized, and Distributed) BMPs

Construction through areas within or adjacent to waterways (creeks, stream, reservoir) or wetland features would require approval from one or more of the following: USACE, RWQCB, or CDFW. Wetlands occur throughout the EWMP Areas ranging from isolated segments of improved urban channels to the open river segments of the Santa Clara, Los Angeles, and San Gabriel Rivers. Once project facility locations and designs are determined, exact locations and acreages of jurisdictional areas located within or adjacent to impact areas shall be determined through a formal jurisdictional delineation.

For projects impacting native vegetation within jurisdictional drainages, the implementing agency would be required to obtain California Fish and Game Code Section 1602 compliance and Section 404 compliance from the USACE and Section 401 Certification from the RWQCB. In addition, implementation of Mitigation Measures BIO-1 through BIO-9 would ensure compliance with state and federal regulations relating to potentially jurisdictional features, including wash habitat vegetation that may fall under CDFW jurisdiction.

Mitigation Measures

Implement Mitigation Measures BIO-1 through BIO-8.

BIO-9: Prior to construction, a qualified wetland delineator shall be retained to conduct a formal wetland delineation in areas where potential jurisdictional resources (i.e., wetlands or drainages) subject to the jurisdiction of USACE, RWQCB, and CDFWmay be affected by the project. If jurisdictional resources are identified in the EWMP area and would be directly or indirectly impacted by individual projects, the qualified wetland delineator shall prepare a jurisdictional delineation report suitable for submittal to USACE, RWQCB, and

CDFW for purposes of obtaining the appropriate permits. Habitat mitigation and compensation requirements shall be implemented prior to construction in accordance with Mitigation Measure BIO-4.

Significance Determination: Less than significant with mitigation. (The application of these mitigation measures to specific BMP types and categories are identified in Table 3.3-1.)

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, there would be no impacts to wetlands or other jurisdictional features from construction. Non-structural BMPs would result in a reduction of urban dry-weather surface flows that currently may support wetlands. Returning the local hydrology to a more natural condition would occur overtime. Local wetland features that rely on urban runoff could gradually become non-hydric, resulting in a reduction in wetlands in the region. However, their functions as ephemeral water ways would not be reduced, but rather would reflect the more natural condition afforded by the Southern California climate. The revised hydrology would not result in a reduction of waters of the United States. Moreover, the retained water infiltrated into the ground would augment the shallow groundwater that serves to support local wetlands and riparian habitats. Increased groundwater seepage would increase the extent of wetlands and wetted areas and on a regional scale offset any reduction caused by surface flow reductions.

Implementation of BMPs would ensure compliance with the CWA requiring MS4s to reduce dry-weather flows in this region. Although compliance with Section 402 of the CWA may result in a reduction of wetlands in the region supported by surface flow, the infiltration of surface water into the ground would offset the potential impact, resulting in no net loss and a less-than-significant impact to wetlands.

Mitigation Measures: None required

Significance Determination: No impact

Wildlife Movement

Impact 3.3-4: The proposed project could interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Structural (Regional, Centralized, and Distributed) BMPs

There are no established wildlife movement corridors within the EWMP area as described within the Los Angeles County General Plan directly affected by implementation of the EWMPs. While portions of the EWMP areas are located within the linkage design for the San Gabriel-Castaic and Santa Monica-Sierra Madre connections, implementation of structural BMPs would primarily be constructed within existing stormwater facilities or disturbed areas. Furthermore, the EWMPs

would not reduce open water features used by migratory birds or reduce fresh water flows that support sensitive fish species.

Implementation of the EWMP would not be expected to interfere with wildlife movement or any migratory corridor/linkage, and would not be constructed within a native wildlife nursery site.

Mitigation Measures: None required

Significance Determination: Less than significant

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, there would be no impacts related to the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors.

Mitigation Measures: None required

Significance Determination: No impact

Local Policies or Ordinances

Impact 3.3-5: The proposed project could conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Structural (Regional, Centralized, and Distributed) BMPs

The proposed project would mainly be constructed within highly urbanized and disturbed areas within existing infrastructure. Any impacts to oak trees within Los Angeles County would be required to comply with the Oak Tree Preservation Ordinance (or other tree ordinances established by the local city). A tree permit may be required if impacts to oak trees or other protected trees are determined to be necessary. No impacts to oak trees or other protected tree species is anticipated. However, the exact locations of the BMP projects have not been established. Implementation of **Mitigation Measure BIO-10** would reduce any potential impacts to protected tree species to a less-than-significant level.

Mitigation Measure

BIO-10: Oak trees and other protected trees shall be avoided to the extent feasible. If trees may be impacted by project construction, a certified arborist shall conduct a tree inventory of the construction impact area. If any oak trees or other protected trees will be impacted by BMP construction, the implementing agency shall obtain any required County or City permits.

Significance Determination: Less than significant with mitigation. (The application of this mitigation measures to specific BMP types and categories are identified in Table 3.3-1.)

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, there would be no impacts related to conflicts with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Mitigation Measures: None required

Significance Determination: No impact

Adopted Habitat Conservation Plans

Impact 3.3-6: The proposed project could conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

Structural (Regional, Centralized, and Distributed) BMPs

The EWMP areas are not located within an adopted federal or state habitat conservation plan area, but 48 SEAs are located within the boundary of the EWMP area (Figure 3.3-1). In addition, the County Oak Woodland Management Plan covers habitats that exist within some EWMPs. The SEAs and Oak Woodland Management Plan provide protection to many of the sensitive natural communities and special-status species within the County; however, the majority of the structural BMPs would occur in developed or disturbed areas that are expected to be outside of adopted SEAs. As previously discussed, while some regional and centralized structural BMPs (i.e., floodplain management and stream restoration projects) could occur within or adjacent to SEAs, these types of BMPs would provide multi-beneficial water quality and habitat restoration improvements to the applicable EWMP watershed. Further, each development proposed within a designated SEA must undergo a performance review process for compliance with the SEA design compatibility criteria and other standards for approval by the Los Angeles County Department of Regional Planning (County of Los Angeles 2012). Therefore, conflicts with the management policies for each SEA are not anticipated, and impacts would be less than significant.

Mitigation Measures: None required

Significance Determination: Less than significant.

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, there would be no impacts related to conflicts with an adopted habitat conservation plan or the Los Angeles County General Plan.

Mitigation Measures: None required

Significance Determination: No impact

Cumulative Impact Discussion

Structural (Regional, Centralized, and Distributed) BMPs

BMPs would be constructed throughout the EWMP watersheds. Most of the distributed BMPs would be small in scale and would not result in cumulatively significant impacts, as they would occur within existing developed or disturbed areas at existing stormwater infrastructure/facilities. For regional and centralized BMPs at the larger scale, Mitigation Measures BIO-1 through BIO-10 would reduce potentially significant impacts to biological resources, and any additional or more site-specific mitigation measures developed during the future project-level environmental review processes may further reduce potential impacts.

Cumulatively, throughout the region, the retention of stormwater and treatment of pollutants within each watershed, and the reduction of pollutant loading in waterways would substantially benefit the water quality of the region's aquatic and coastal habitats, as well as the plants and wildlife dependent on them. Implementation of the BMPs would also return the local hydrology to a more natural condition. Much of the vegetation supported by urban runoff within these EWMP areas as discussed above is cleared to ensure sufficient flood control function of the channels. In addition, the majority of high-value habitats in the region rely on groundwater seepage rather than perennial urban runoff. Although some drainage segments may exhibit reduced riparian habitat or wetlands over time due to the reduced dry-weather flow, the cumulative effect would be offset by increased groundwater recharge and seepage supporting expanded wetland and riparian vegetation supporting local flora and fauna populations. Therefore, the program's potential contribution to cumulative effects on biological resources is considered less than significant.

Implementation of BMPs would ensure compliance with Section 402 of the CWA that requires MS4s to reduce dry-weather flows in this region. Although compliance with Section 402 of the CWA may result in a reduction of wetlands in the region supported by surface flow, the infiltration of surface water into the ground would offset the potential impact, resulting in a less than significant cumulative impact to biological resources in the region.

Mitigation Measures: None required

Significance Determination: Less than significant

Non-Structural (Institutional) BMPs

As discussed previously, cumulatively, throughout the region, the retention of stormwater and treatment of pollutants within each watershed, and the reduction of pollutant loading in waterways would substantially benefit the water quality of the region's aquatic and coastal habitats, as well as the plants and wildlife dependent on them. Although some drainage segments may exhibit reduced riparian habitat or wetlands over time due to the reduced dry-weather flow, the cumulative effect would be offset by increased groundwater recharge and seepage supporting expanded wetland and riparian vegetation supporting local flora and fauna populations.

Therefore, the program's potential contribution to cumulative effects on biological resources is considered less than significant.

Mitigation Measures: None required

Significance Determination: Less than significant

3.3.4 Summary of Impact Assessment

Table 3.3-1 shows a summary of the structural BMPs requiring mitigation.

TABLE 3.3-1
SUMMARY OF BIOLOGICAL RESOURCE IMPACTS REQUIRING MITIGATION MEASURES

	Thresholds of Significance						
Structural BMPs	**Sensitive Species**	**Sensitive Habitats**	**Wetland Habitats**	**Wildlife Movement**	**Local Policies and Ordinances**	**Habitat Conservation Plans**	**Cumulative Impacts**
Applicable Mitigation Measures:	**BIO-1 through BIO-8**	**BIO-1 through BIO-8**	**BIO-1 through BIO-9**	**None Required**	**BIO-10**	**None Required**	**None Required**
Regional BMPs							
Regional Retention and Infiltration	Yes	Yes	Yes	No	No	No	Yes
Regional Capture, Detention and Use	Yes	Yes	Yes	No	No	No	Yes
Centralized BMPs							
Bioinfiltration	Yes	Yes	Yes	No	No	No	Yes
Constructed Wetlands	Yes	Yes	Yes	No	No	No	Yes
Treatment/LFDs	Yes	Yes	Yes	No	No	No	Yes
Creek, River, Estuary Restoration	Yes	Yes	Yes	No	No	No	Yes
Distributed BMPs							
Site Scale Detention	Yes	Yes	Yes	No	No	No	Yes
LID – Infiltration/Filtration BMPs – Porous Pavement, Green Streets, Bioswale/Filter Strips, downspout disconnects	No	No	No	No	No	No	No
LID – Green Infrastructure – Capture and Use – Cisterns, Rain Barrels, Green roofs, Planter Boxes	No	No	No	No	No	No	No
Flow through Treatment BMPs	No	No	No	No	No	No	No
Source Control Treatment BMPs (catch basin inserts/screens, hydrodynamic separators, gross solids removal devices)	No	No	No	No	No	No	No
Low-Flow Diversion	No	No	No	No	No	No	No

NOTE: These conclusions are based on typical sizes and locations of BMPs.

3.4 Cultural Resources

This chapter addresses the potential impacts of the proposed program on cultural resources. Cultural resources include prehistoric and historic sites, structures, districts, places, and landscapes, or any other physical evidence associated with human activity considered important to a culture, a subculture, or a community for scientific, traditional, religious, or any other reason. Under the California Environmental Quality Act (CEQA), paleontological resources, although not associated with past human activity, are grouped within cultural resources. For the purposes of this analysis, cultural resources may be categorized into the following groups: archaeological resources, historic resources (including architectural/engineering resources), contemporary Native American resources, human remains, and paleontological resources.

Archaeological resources are places where human activity has measurably altered the earth or left deposits of physical remains. Archaeological resources may be either prehistoric-era (before European contact) or historic-era (after European contact). The majority of such places in California are associated with either Native American or Euro-American occupation of the area. The most frequently encountered prehistoric or historic Native American archaeological sites are village settlements with residential areas and sometimes cemeteries; temporary camps where food and raw materials were collected; smaller, briefly occupied sites where tools were manufactured or repaired; and special-use areas like caves, rock shelters, and rock art sites. Historic-era archaeological sites may include foundations or features such as privies, corrals, and trash dumps.

Historic resources include standing structures, infrastructure, and landscapes of historic or aesthetic significance that are generally 50 years of age or older. In California, historic resources considered for protection tend to focus on architectural sites dating from the Spanish Period (1529–1822) through World War II (WWII) and Post War–era facilities. Some resources, however, may have achieved significance within the past 50 years if they meet the criteria for exceptional significance. Historic resources are often associated with archaeological deposits of the same age.

Contemporary Native American resources, also called ethnographic resources, can include archaeological resources, rock art, and the prominent topographical areas, features, habitats, plants, animals, and minerals that contemporary Native Americans value and consider essential for the preservation of their traditional values. These locations are sometimes hard to define and traditional culture often prohibits Native Americans from sharing these locations with the public.

Paleontology is a branch of geology that studies the life forms of the past, especially prehistoric life forms, through the study of plant and animal fossils. Paleontological resources represent a limited, nonrenewable, and impact-sensitive scientific and educational resource. As defined in this section, paleontological resources are the fossilized remains or traces of multicellular invertebrate and vertebrate animals and multicellular plants, including their imprints from a previous geologic period. Fossil remains such as bones, teeth, shells, and leaves are found in the geologic deposits (rock formations) where they were originally buried. Paleontological resources

include not only the actual fossil remains, but also the collecting localities, and the geologic formations containing those localities.

3.4.1 Environmental Setting

Cultural Resources

Part of the program area is located in the Los Angeles Basin. The basin is formed by the Santa Monica Mountains to the northwest, the San Gabriel Mountains to the north, and the San Bernardino Mountains and San Jacinto Mountains to the east. The basin was formed by alluvial and fluvial deposits derived from these surrounding mountains. Prior to urban development and the channeling of the Los Angeles River, much of the program area was likely covered with marshes, thickets, dense woodland, and grassland. Historically, the Los Angeles River originated from a spring near what is present-day Encino. The river flowed eastward from Encino through the southern portion of the San Fernando Valley near the foot of the Santa Monica Mountains before turning southeast at what is present-day Griffith Park (Gumprecht, 2001). From there, it flowed to the Pacific Ocean along a frequently shifting course, sometimes flowing south to empty into San Pedro Bay near Long Beach, sometimes flowing west to the Santa Monica Bay along the course of what is present-day Ballona Creek. In its natural state, the river's flow meandered dramatically, narrowed and widened intermittently, and even returned underground completely in certain locations. The floodplain forest of the Los Angeles Basin formed one of the most biologically rich habitats in Southern California. Willow, cottonwood, and sycamore and dense underbrush of alder, hackberry, and shrubs once lined the Los Angeles River as it passed near what is present-day downtown Los Angeles (Gumprecht, 2001). Although historically most of the Los Angeles River was dry for at least part of the year, shallow bedrock in the Elysian Park area north of what is present-day downtown forced much of the river's underground water to the surface. This allowed for a steady year-round flow of water through the area that later became known as downtown Los Angeles (Gumprecht, 2001).

Prehistory

The abundant and diverse environmental resources of the coastal Los Angeles basin have attracted human inhabitants from the earliest times. The prehistory of the region has been summarized within four major horizons or cultural periods: Early, Millingstone, Intermediate, and Late Prehistoric (Wallace, 1955).

The Early period covers the interval from the first presence of humans in Southern California until post-glacial times. While people are known to have inhabited Southern California beginning at least 13,000 years Before Present (B.P.) (Arnold et al., 2004), the first evidence of human occupation of the Los Angeles area dates to at least 9,000 B.P. These occupations are associated with a period known as the Millingstone Cultural Horizon (7,000-4,000 B.P) (Wallace, 1955; McIntyre, 1990). Departing from the subsistence strategies of their nomadic big-game hunting predecessors, Millingstone populations established more permanent settlements. Settlements were located primarily on the coast and in the vicinity of estuaries, lagoons, lakes, streams, and marshes where a variety of resources, including seeds, fish, shellfish, small mammals, and birds,

were exploited. Early Millingstone occupations are typically identified by the presence of handstones (manos) and millingstones (metates), while those Millingstone occupations dating later than 5,000 B.P. contain a mortar and pestle complex as well, signifying an increased dependence on new food sources, such as acorns and starchy tubers.

Although many aspects of Millingstone culture persisted, by 3,500 B.P., a number of socioeconomic changes occurred (Wallace, 1955; McIntyre, 1990). These changes are associated with the period known as the Intermediate Horizon (3,500–1,500 B.P.) (Wallace, 1955). Increasing population size necessitated the intensified use of existing terrestrial and marine resources (Erlandson, 1994). This was accomplished in part through use of the circular shell fishhook on the coast and more abundant and diverse hunting equipment. The Intermediate Horizon marks a period in which specialization in labor emerged, trading networks became an increasingly important means by which both utilitarian and non-utilitarian materials were acquired, and travel routes were extended. Archaeological evidence suggests that the margins of rivers, marshes, and swamps within the Los Angeles River drainage, with their rich variety of resources, served as locations of prehistoric settlement and travel during this period. Settlement around the Ballona Lagoon increased significantly during this period (Altschul et al., 2003).

The Late Prehistoric Period, spanning from approximately 1,500 years B.P. to the Spanish mission era, witnessed an increase in terrestrial and sea mammal hunting, along with continued seed collecting (Wallace, 1955). Small projectile points indicate the use of the bow and arrow. Although the location of Late Period villages does not significantly change, the villages become larger in size and fewer in number (McIntyre, 1990). Inter-village and inter-regional trade increased, and there is evidence for the use of shell beads as a form of money in economic exchanges.

Ethnographic Background

Tataviam

The northern part of the program area is located within the territory traditionally occupied by the Tataviam. Tataviam territory was concentrated along the upper reaches of the Santa Clara River drainage between the San Fernando Valley on the south and Pastoria Creek in the Tehachapi Mountains to the north. Their territory also included east Piru Creek and the southern slopes of Sawmill and Liebre Moutains, and also extended into the southern end of the Antelope Valley (King and Blackburn, 1978).

There are few historical sources regarding the Tataviam. The word “Tataviam” most likely came from a Kitanemuk word that may be roughly translated as “people of the south-facing slope,” because of their settlement on south-facing mountain slopes (King and Blackburn, 1978). What the Tataviam called themselves is not known. The Tataviam spoke a language that was part of the Takic branch of the Uto-Aztecan language family (King and Blackburn, 1978). The language was related to that spoken by the Gabrielino-Tongva.

Tataviam villages varied in size from larger centers with as many as 200 people, to smaller villages with only a few families (King and Blackburn, 1978). At the time of Spanish contact, the

Tataviam population is estimated to have been less than 1,000. Primary vegetable food sources included acorns, juniper berries, seeds, and yucca buds. Small game such as antelope and deer supplemented these foods. Trade networks between inland groups such as the Tataviam, the coastal regions, and desert regions enabled the trade of exotic materials such as shell, asphaltum, and steatite.

Gabrielino-Tongva

The southern portion of the program area is located in a region traditionally occupied by the Takic-speaking Gabrielino-Tongva Indians. The term "Gabrielino" is a general term that refers to those Native Americans who were administered by the Spanish at the Mission San Gabriel Arcángel. Many contemporary Gabrielino identify themselves by the name "Tongva." Prior to European colonization, the Gabrielino-Tongva occupied a diverse area that included: the watersheds of the Los Angeles, San Gabriel, and Santa Ana rivers; the Los Angeles basin; and the islands of San Clemente, San Nicolas, and Santa Catalina (Kroeber, 1925). The Gabrielino language, like the Tataviam language, was part of the Takic branch of the Uto-Aztecan language family.

The Gabrielino-Tongva Indians were hunter-gatherers and lived in permanent communities located near the presence of a stable food supply. Community populations generally ranged from 50 to 100 inhabitants, although larger settlements may have existed. The Gabrielino-Tongva are estimated to have had a population numbering around 5,000 in the precontact period (Kroeber, 1925). Villages are reported to have been the most abundant in the San Fernando Valley, the Glendale Narrows area north of downtown, and around the Los Angeles River drainage (Gumprecht, 2001). Maps produced by early explorers indicate that at least 26 Gabrielino villages were within close proximity to known Los Angeles River courses, while an additional 18 villages were within reasonably close proximity to the river (Gumprecht, 2001).

Subsistence consisted of hunting, fishing, and gathering. Small terrestrial game were hunted with deadfalls, rabbit drives, and by burning undergrowth, while larger game such as deer were hunted using bows and arrows. Fish were taken by hook and line, nets, traps, spears, and poison (Bean and Smith, 1978). The primary plant resources were the acorn, gathered in the fall and processed in mortars and pestles, and various seeds that were harvested in late spring and summer and ground with manos and metates. The seeds included chia and other sages, various grasses, and islay or holly-leafed cherry.

Coming ashore on Santa Catalina Island in October of 1542, Juan Rodriguez Cabrillo was the first European to make contact with the Gabrielino-Tongva; the 1769 expedition of Gaspar de Portolá also passed through Gabrielino-Tongva territory (Bean and Smith, 1978). Native Americans suffered severe depopulation and their traditional culture was radically altered after Spanish contact. Nonetheless, Gabrielino-Tongva descendants still reside in the greater Los Angeles and Orange County areas and maintain an active interest in their heritage.

Historic Setting

Spanish Period (A.D. 1769-1821)

Although Spanish explorers made brief visits to the region in 1542 and 1602, sustained contact with Europeans did not commence until the onset of the Spanish Period. In 1769 Gaspar de Portolá led an expedition from San Diego, passing through Los Angeles Basin, San Fernando Valley, and Santa Clarita Valley on its way to the San Francisco Bay (McCawley, 1996). This was followed in 1776 by the expedition of Father Francisco Garcés (Johnson and Earle, 1990).

In the late 18th century, the Spanish began establishing missions in California and forcibly relocating and converting native peoples. Two missions were located in the vicinity of the program area: Mission San Gabriel Arcángel, founded in 1771, and Mission San Fernando Rey de España, founded in 1797. Gabrielino-Tongva Indians were primarily sent to Mission San Gabriel to be baptized, although some were also baptized at Mission San Fernando. By 1820, most of the Tataviam population had been baptized at Mission San Fernando (California Missions Resource Center, 2012). Disease and hard labor took a toll on the native population in California; by 1900, the Native Californian population had declined by as much as 90 percent (Cook, 1978). In addition, native economies were disrupted, trade routes were interrupted, and native ways of life were significantly altered.

In an effort to promote Spanish settlement of Alta California, Spain granted several large land concessions from 1784 to 1821. At this time, unless certain requirements were met, Spain retained title to the land (State Lands Commission [SLC], 1982). Over 70 Spanish land grants were made within Los Angeles County.

On September 4, 1781, El Pueblo de la Reina de los Angeles was established not far from the site where Portolá and his men camped during their 1769 excursion. The original pueblo consisted of a central square surrounded by 12 houses and a series of agricultural fields (Gumprecht, 2001).

Mexican Period (A.D. 1821-1848)

The Mexican Period began when Mexico won its independence from Spain in 1821. Mexico continued to promote settlement of California with the issuance of land grants. In 1833, Mexico began the process of secularizing the missions, reclaiming the majority of mission lands and redistributing them as land grants. Many ranchos continued to be used for cattle grazing by settlers during the Mexican Period. Hides and tallow from cattle became a major export for Californios (native Hispanic Californians) (Pitt, 1994; Starr, 2007).

After Mexico gained its independence, the city of Los Angeles became the capital of the California territory in 1835. But few visited the area and the town remained a “sleepy agricultural village” until the Gold Rush in 1848 (Gumprecht, 2001).

American Period (A.D. 1848-present)

In 1846, the Mexican-American War broke out. Mexican forces were eventually defeated in 1847 and Mexico ceded California to the United States as part of the Treaty of Guadalupe Hildalgo in 1848. California officially became one of the United States in 1850.

The County of Los Angeles was established on February 18, 1850, as one of the 27 original counties, several months before California was admitted to the Union on September 9, 1850. It derived its name from the community of Los Angeles, which was designated the County seat. Parts of the county's territory were given to San Bernardino County in 1853, to Kern County in 1866 and to Orange County in 1889 (County of Los Angeles, 2014).

When the discovery of gold in Northern California was announced in 1848, a huge influx of people from other parts of North America flooded into California. The increased population provided an additional outlet for California cattle. As demand increased, the price of beef skyrocketed and California reaped the benefits. However, a devastating flood in 1861, followed by droughts in 1862 and 1864, led to a rapid decline of the cattle industry; over 70 percent of cattle perished during these droughts (McWilliams, 1949; Dinkelspiel, 2008). This event, coupled with the burden of proving ownership of their lands, caused many Californians to lose their lands during this period (McWilliams, 1949). Former ranchos were subsequently subdivided and sold for agriculture and residential settlement.

The first transcontinental railroad was completed in 1869, connecting San Francisco with the eastern United States. Newcomers poured into Northern California. Southern California experienced a trickle-down effect, as many of these newcomers made their way south. The Southern Pacific Railroad extended this line from San Francisco to Los Angeles in 1876. The second transcontinental line, the Santa Fe, was completed in 1886 and caused a fare war, driving fares to an unprecedented low. Settlers flooded into the region and the demand for real estate skyrocketed. As real estate prices soared, land that had been farmed for decades outlived its agricultural value and was sold to become residential communities. The subdivision of the large ranchos took place during this time (Meyer, 1981; McWilliams, 1949).

The city of Los Angeles would experience its greatest growth in the 1880s when two more direct rail connections to the East Coast were constructed. The resulting fare wars led to an unprecedented real estate boom. Despite a subsequent collapse of the real estate market, the population of Los Angeles increased 350 percent from 1880 to 1890 (Dinkelspiel, 2008). From 1890 to 1900, the city continued to grow, and many infrastructure projects were completed during this decade (McWilliams, 1949). E.L. Doheny discovered oil in 1892, adding fuel to the flame, and the population doubled by 1900. From 1900 to 1920, Los Angeles became a tourist mecca (McWilliams, 1949). The Los Angeles Aqueduct was constructed and a large portion of the San Fernando Valley annexed to the city during the first decade of the 20th century. From 1920 to 1930, Los Angeles experienced another population explosion, due in part to the automobile and the development of the movie industry. During the first three decades of the 20th century, more than two million people moved to Los Angeles County, transforming it from a largely agricultural region into a major metropolitan area with a population of 2.8 million within the city of Los Angeles and over 7 million within Los Angeles County by 1970 (U.S. Bureau of the Census, 1998; 1995).

Geoarchaeological Review

A project's probability for encountering archaeological resources depends upon three factors: (1) original formation of an archaeological deposit, (2) post-depositional (mainly geomorphic) processes following deposition of archaeological remains, and (3) project-specific ground disturbances. The original formation of an archaeological deposit in any particular place requires a past human presence as well as behaviors that result in material culture residue. The formation of archaeological deposits is conditioned by the dynamic interaction of paleoenvironmental factors (e.g., past climate, availability of water, abundance of subsistence resources) with a culture's economic, technological, social, and other behavioral systems. As Meyer et al. (2010) have pointed out: "Archaeological deposits are not randomly distributed throughout the landscape, but tend to occur in specific geo-environmental settings." While there seems to be no commonly agreed upon set of landform characteristics for predicting locations in which archaeological sites would be expected to form, landform slope and proximity to water have been invoked as useful predictors in central California (Meyer et al., 2010) and may be relevant to the program area. Stated simply, flat landforms near permanent sources of water tend to be strongly associated with archaeological deposits, while sloping landforms that lack water tend not to have archaeological deposits (Meyer et al., 2010).

Original formation of an archaeological deposit is a necessary, but not sufficient, condition to ensure that an archaeological site is still present centuries or millennia later. Post-depositional conditions must be suitable for preserving archaeological deposits for them to be discovered in the future. Geomorphological processes may work to either preserve or protect archaeological deposits, and their effects may vary depending on the specific setting. Landslides, for example, may displace and destroy archaeological sites at the top of a bluff, but may cover and protect sites at the bottom or toe of the bluff. In a similar vein, fluvial processes may erode archaeological sites along river cutbanks, but may deeply bury archaeological sites along the channel's floodplain. Absence of natural depositional forces—at the top a mountain ridgeline, for example—leave cultural materials exposed to the elements increasing their chance of destruction. Bedrock outcroppings, where little to no soil formation typically takes place, may lack sufficient matrix to cover and preserve traces of past human activity. One of the forces most capable of destroying archaeological sites is human activities. Agriculture, development of infrastructure, and urbanization especially can disturb and destroy archaeological sites, particularly surface or shallow sites, over immense areas.

If the various Enhanced Watershed Management Program (EWMP) projects and approaches may be likened to different types of infrastructure development, then their potential effects to archaeological deposits can be understood in terms of human activity impacts. Program actions that would result in large areas of deep ground disturbance would have a greater probability for encountering and impacting buried archaeological deposits than approaches resulting in more limited horizontal and vertical disturbances.

The program area is bounded on the northwest by the Santa Monica Mountains, on the northeast by the San Gabriel Mountains, on the southeast by the Orange County coastal plain, and on the west and southwest by the Pacific Ocean. The program area largely consists of the Los Angeles,

Santa Clara, San Gabriel Rivers, Santa Monica Bay, and the Dominguez Channel Watersheds, and includes the Los Angeles Basin, San Fernando, and Santa Clarita Valleys. Topography varies regionally from sea level at the coast to several thousand feet in the surrounding mountains.

Broadly, erosion of bedrock out of the San Gabriel and Santa Monica Mountains during the Pleistocene and Holocene has resulted in construction of a broad and recent alluvial plain (Los Angeles Basin) between the mountain foothills and the coast. With few exceptions, this plain has been heavily urbanized and modified within the last century. Tectonism and over-steepening has resulted in formation of extensive landslide zones within the mountains and foothills, and many low-lying valleys are filled with colluvium and/or alluvium. Urbanization has occurred within of these valleys, as well as overlooking ridgelines.

The archaeological potential of the program area will be highly variable depending on local conditions. The low-lying alluvial plain and coastlines would be expected to have been preferred areas for past subsistence and occupation, and archaeological sites in these areas may have been subject to substantial burial. However, the extensive urbanization of these areas makes it likely that a high percentage of archaeological sites that once existed have been subject to disturbance or destruction by humans. On the other hand, while foothills and mountains may have been less favored for occupation because of their steeper slopes and more limited access to water, these areas have generally been subject to less development.

Paleontological Resources

The majority of the program area lies within the Los Angeles Basin, which is characterized by relatively flat (slight dip to the south) alluviated areas punctuated by tectonically uplifted highlands that drain into lower-lying areas and eventually the Pacific Ocean. It is these drainages that are, in part, responsible for the thick sequence of terrestrial sedimentary rocks that underlie much of the greater Los Angeles area and the diversity of fossils contained therein. During much of the early geological history of the program area, from the Early Miocene (approximately 23 million years before present) to the Late Pleistocene (approximately 11,000 years before present) sea level was much higher than today, and the much of the area was under water. Thick, richly fossiliferous (fossil-bearing) marine sedimentary sequences underlie much of the area, and where significant uplift has occurred because of tectonic forces, these fossil-rich rocks are exposed at the surface.

The following analysis of paleontological sensitivity within the program boundaries is based on available surficial geological mapping, published and unpublished technical reports, published scientific journals, and the University of California Museum of Paleontology online specimen database. No museum paleontological records searches were enlisted for this analysis. Because of the large geographic area and complex geology represented by the proposed program, surficial geological units and paleontological resources are outlined separately by each of the five watersheds (Santa Clara River, Los Angeles River, San Gabriel River, Santa Monica Bay, and Dominguez Channel), as shown in Figure 1-1. Furthermore, igneous and metamorphic rock units are omitted from this analysis because of they have no potential to yield significant paleontological resources.

Units are assigned a sensitivity rating based on Society for Vertebrate Paleontology (SVP) guidelines. The SVP has outlined criteria for screening the paleontological potential of rock units and has established assessment and mitigation procedures tailored to accommodating such potential. The SVP established four categories of paleontological sensitivity (potential) for rock units: high, undetermined, low, and no potential (SVP, 2010):

- **High Potential.** Rock units (or formations) in which vertebrate or significant invertebrate fossils have been found. These rock units include sedimentary and some volcanic formations that contain significant fossil resources anywhere within their geographic extent and sedimentary deposits formed in a time period or composed of materials suitable for the preservation of fossils. Only invertebrate fossils that provide new information on existing flora or fauna or on the age of a rock unit would be considered significant.
- **Undetermined Potential.** Rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment are considered to have undetermined potential. Further study is necessary to determine if these rock units have high or low potential to contain significant paleontological resources. A field survey by a qualified professional paleontologist to specifically determine the paleontological resource potential of these rock units is required before a paleontological resource impact mitigation program can be developed. In cases where no subsurface data are available, paleontological potential can sometimes be determined by strategically located excavations into subsurface stratigraphy.
- **Low Potential.** Rock units that have few, if any, records of vertebrate fossils in institutional collections, or that have been shown in surveys or paleontological literature to be largely absent of fossil resources. Low-potential rocks also include metamorphic and igneous rocks other than some volcanic rocks.
- **No Potential.** Some rock units have no potential to contain significant paleontological resources, for instance high- grade metamorphic rocks (such as gneisses and schists) and plutonic igneous rocks (such as granites and diorites). Rock units with no potential require no protection or impact mitigation measures relative to paleontological resources. Units with no potential are not included in the following discussion.

Table 3.4-1 identifies paleontologically sensitive geologic formations within the region.

TABLE 3.4-1
PALEONTOLOGICALLY SENSITIVE GEOLOGIC UNITS/FORMATIONS WITHIN THE PROGRAM AREA

Geologic Unit/Formation	Sensitivity	Watershed
Recent Surficial Sediments (Quaternary alluvium, slopewash)	Low, higher at depth	All
Pleistocene (Older) Alluvium and Quaternary Terrace Deposit	High	All
Pacoima Formation	Undetermined	Los Angeles River
La Habra Formation	High	San Gabriel River
Saugus Formation	High	Santa Clara River and Los Angeles River
San Pedro Sand	High	Los Angeles River and Santa Monica Bay
Inglewood Formation	Undetermined	San Gabriel River
Fernando Formation	High	Santa Clara River and Los Angeles River
Pico Formation	High	Los Angeles River and Santa Monica Bay
Modelo Formation	High	Los Angeles River
The Towsley Formation	High	Santa Clara River and Los Angeles River
Ridge Basin Group	High	Santa Clara River
Sisquoc Formation	High	Santa Clara River and Los Angeles River
Puente Formation	High	San Gabriel River
Late Miocene Unnamed Marine Strata	Undetermined	Los Angeles River and Santa Monica Bay
Castaic Formation	High	Santa Clara River
The Monterey Formation	High	Santa Clara River
Mint Canyon Formation	High	Santa Clara River and Los Angeles River
Topanga Formation	High	Los Angeles River, Santa Monica Bay, and San Gabriel River
Trancas Formation	Undetermined	Santa Monica Bay
Tick Canyon Formation	High	Santa Clara River
Vasquez Formation	Low	Santa Clara River
Sespe-Vaqueros Formations	High	Santa Clara River and Santa Monica Bay
Llajas Formation	High	Los Angeles River and Santa Monica Bay
Eocene Unnamed marine strata	Undetermined	Los Angeles River and Santa Monica Bay
Santa Susana Formation	High	Los Angeles River and Santa Monica Bay
Martinez Formation	High	Los Angeles River
Chico Formation	High	Los Angeles River
Chatsworth Formation	High	Los Angeles River

SOURCES: Dibblee, 1996, 1997a, 1997b, 1997c, 1997d; Dibblee and Ehrenspeck 1989a, 1989b, 1990, 1991a, 1991b, 1991c, 1991d, 1992a, 1992b, 1992c, 1993a, 1993b, 1996a, 1996b, 1998, 1999, 2001a, 2001b; Dibblee et al., 1993, 1999; Dibblee and Minch, 2003, 2007; Durham et al., 1954; Evans and Miller, 1978; Fierstine et al, 2012; Groves 1991a, 1991b; Jennings, 1962; Kellogg, 1925, 1929; Kern, 1973; Koch et al., 1974; Maxson, 1930; Mount, 1971; Parham et al., 2003; Repenning, 1977; Smith et al., 2002; Squires, 1979, 2001; Squires et al., 2006; Stanton, 1960; Whistler, 1967; Yerkes and Campbell, 2005.

3.4.2 Regulatory Setting

Federal, state, and local governments have developed laws and regulations designed to protect significant cultural resources that may be affected by actions that they undertake or regulate. The National Historic Preservation Act (NHPA) and CEQA are the primary federal and state laws governing preservation of historic and archaeological resources of national, regional, state, and local significance. If individual projects entail a federal nexus, such as a federal approval, federal funding, or federal property, federal historic preservation laws such as the NHPA may apply.

Federal

National Historic Preservation Act of 1966

Enacted in 1966, the NHPA declared a national policy of historic preservation and instituted a multifaceted program, administered by the Secretary of the Interior, to encourage the achievement of preservation goals at the federal, state, and local levels. Section 106 of the NHPA states that federal agencies with direct or indirect jurisdiction over federally funded, assisted, or licensed undertakings must take into account the effect of the undertaking on any historic property that is included in, or eligible for inclusion in, the National Register of Historic Places (NRHP) and that the ACHP must be afforded an opportunity to comment. The steps of the Section 106 process are accomplished through consultation with the State Historic Preservation Office, federally recognized Indian tribes, local governments, and other interested parties. The goal of consultation is to identify potentially affected historic properties, assess effects to such properties, and seek ways to avoid, minimize, or mitigate any adverse effects on such properties.

National Register of Historic Places

The NRHP was established by the NHPA of 1966, as "an authoritative guide to be used by federal, state, and local governments, private groups and citizens to identify the Nation's historic resources and to indicate what properties should be considered for protection from destruction or impairment" (Code of Federal Regulations 36 Section 60.2). The NRHP recognizes both historical-period and prehistoric archaeological properties that are significant at the national, state, and local levels.

To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must meet one or more of the following four established criteria (U.S. Department of the Interior, 1995):

A. Are associated with events that have made a significant contribution to the broad patterns of our history.

B. Are associated with the lives of persons significant in our past.

C. Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.

D. Have yielded, or may be likely to yield, information important in prehistory or history.

Unless the property possesses exceptional significance, it must be at least 50 years old to be eligible for NRHP listing (U.S. Department of the Interior, 1995).

In addition to meeting the criteria of significance, a property must have integrity. Integrity is defined as "the ability of a property to convey its significance" (U.S. Department of the Interior, 1995). The NRHP recognizes seven qualities that, in various combinations, define integrity: location, design, setting, materials, workmanship, feeling, and association. To retain historic integrity a property must possess several, and usually most, of these seven aspects. Thus, the retention of the specific aspects of integrity is paramount for a property to convey its significance.

State

California Register of Historical Resources

Under the California Public Resources Code, Section 5024.19(a), the California Register of Historical Resources (CRHR) was created in 1992 and implemented in 1998 as "an authoritative guide in California to be used by State and local agencies, private groups, and citizens to identify the State's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change." Certain properties, including those listed in or formally determined eligible for listing in the NRHP and California Historical Landmarks numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historical resources surveys or designated by local landmarks programs, may be nominated for inclusion in the CRHR. A resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria:

- **Criterion 1.** It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- **Criterion 2.** It is associated with the lives of persons important in our past.
- **Criterion 3.** It embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.
- **Criterion 4.** It has yielded, or may be likely to yield, information important in history or prehistory.

Furthermore, under California Public Resources Code (PRC) 5024.1, Title 14 California Code of Regulations (CCR), Section 4852(c), a cultural resource must retain integrity to be considered eligible for the CRHR. Specifically, it must retain sufficient character or appearance to be recognizable as a historical resource and convey reasons of significance. Integrity is evaluated with regard to retention of such factors as location, design, setting, materials, workmanship, feeling, and association.

California Historical Landmarks

California Historical Landmarks (CHLs) are buildings, structures, sites, or places that have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value and that have been determined to have statewide historical significance by meeting at least one of the criteria listed below. The resource also must be approved for designation by the County Board of Supervisors (or the city or town council in whose jurisdiction it is located); be recommended by the State Historical Resources Commission; and be officially designated by the Director of California State Parks. The specific standards now in use were first applied in the designation of CHL #770. CHLs #770 and above are automatically listed in the CRHR.

To be eligible for designation as a landmark, a resource must meet at least one of the following criteria:

- It is the first, last, only, or most significant of its type in the state or within a large geographic region (Northern, Central, or Southern California).
- It is associated with an individual or group having a profound influence on the history of California.
- It is a prototype of, or an outstanding example of, a period, style, architectural movement or construction or is one of the more notable works or the best surviving work in a region of a pioneer architect, designer, or master builder.

California Points of Historical Interest

California Points of Historical Interest (PHIs) are sites, buildings, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. PHI designated after December 1997 and recommended by the SHRC are also listed in the CRHR. No historic resource may be designated as both a landmark and a point. If a point is later granted status as a landmark, the point designation will be retired. In practice, the point designation program is most often used in localities that do not have a locally enacted cultural heritage or preservation ordinance.

To be eligible for designation as a PHI, a resource must meet at least one of the following criteria:

- It is the first, last, only, or most significant of its type within the local geographic region (city or county).
- It is associated with an individual or group having a profound influence on the history of the local area.
- It is a prototype of, or an outstanding example of, a period, style, architectural movement or construction or is one of the more notable works or the best surviving work in the local region of a pioneer architect, designer, or master builder.

California Environmental Quality Act

CEQA is the principal statute governing environmental review of projects occurring in the state and is codified at PRC Section 21000 et seq. CEQA requires lead agencies to determine if a project would have a significant effect on the environment, including significant effects on historical or archaeological resources.

Under CEQA (Section 21084.1), a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. The CEQA Guidelines (Title 14 CCR Section 15064.4) recognize that an historical resource includes: (1) a resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the CRHR; (2) a resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); and (3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency's determination is supported by substantial evidence in light of the whole record. The fact that a resource does not meet the three criteria outlined above does not preclude the lead agency from determining that the resource may be an historical resource as defined in PRC Sections 5020.1(j) or 5024.1.

If a lead agency determines that an archaeological site is a historical resource, the provisions of Section 21084.1 of CEQA and Section 15064.4 of the CEQA Guidelines apply. If a project may cause a substantial adverse change (defined as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired) in the significance of an historical resource, the lead agency must identify potentially feasible measures to mitigate these effects (CEQA Guidelines Sections 15064.4(b)(1), 15064.4(b)(4)).

If an archaeological site does not meet the historical resource criteria contained in the CEQA Guidelines, then the site may be treated in accordance with the provisions of Section 21083, which is a unique archaeological resource. As defined in Section 21083.2 of CEQA a "unique" archaeological resource is an archaeological artifact, object, or site, for which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If an archaeological site meets the criteria for a unique archaeological resource as defined in Section 21083.2, then the site is to be treated in accordance with the provisions of Section 21083.2, which state that if the lead agency determines that a project would have a significant effect on unique archaeological resources, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place (Section 21083.1(a)). If preservation in place is not feasible, mitigation measures shall be required.

The CEQA Guidelines note that if an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment (CEQA Guidelines Section 15064.4(c)(4)).

Senate Bill 18

Senate Bill 18 (SB 18), which went into effect January 1, 2005, requires local governments (city and county) to consult with Native American Tribes before making certain planning decisions and to provide notice to tribes at certain key points in the planning process. The intent is to "provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places" (Governor's Office of Planning and Research [OPR], 2005).

The purpose of involving Tribes at these early planning stages is to allow consideration of cultural places in the context of broad local land use policy, before individual site-specific, project-level, land use designations are made by a local government. The consultation requirements of SB 18 apply to general plan or specific plan processes proposed on or after March 1, 2005.

According to the *Tribal Consultation Guidelines: Supplement to General Plan Guidelines* (OPR, 2005), the following are the contact and notification responsibilities of local governments:

- Prior to the adoption or any amendment of a general plan or specific plan, a local government must notify the appropriate tribes (on the contact list maintained by the Native American Heritage Commission [NAHC]) of the opportunity to conduct consultations for the purpose of preserving, or mitigating impacts to, cultural places located on land within the local government's jurisdiction that is affected by the proposed plan adoption or amendment. Tribes have 90 days from the date on which they receive notification to request consultation, unless a shorter timeframe has been agreed to by the tribe (Government Code Section 65352.3).
- Prior to the adoption or substantial amendment of a general plan or specific plan, a local government must refer the proposed action to those tribes that are on the NAHC contact list and have traditional lands located within the city or county's jurisdiction. The referral must allow a 45-day comment period (Government Code Section 65352). Notice must be sent regardless of whether prior consultation has taken place. Such notice does not initiate a new consultation process.

- Local government must send a notice of a public hearing, at least 10 days prior to the hearing, to tribes who have filed a written request for such notice (Government Code Section 65092).

If an individual structural BMP project entailed the adoption or substantial amendment of a general plan or specific plan, the provisions of Senate Bill 18 may apply.

Local

County

The Conservation and Open Space Element of the 2008 Los Angeles County General Plan governs the natural and cultural resources of the county. The Los Angeles County General Plan has the following relevant goals and policies related to the protection of cultural and paleontological resources.

Goal C/OS-12: Protected cultural heritage resources.

Policy C/OS 12.1: Support an inter-jurisdictional collaborative system that protects and enhances the County's cultural heritage resources.

Policy C/OS 12.2: Support the preservation and rehabilitation of historic buildings.

Policy C/OS 12.3: Ensure proper notification procedures to Native American tribes in accordance with Senate Bill 18 (2004).

Policy C/OS 12.4: Promote public awareness of the County's cultural heritage resources.

Implementation Action C/OS 12.1 Evaluate the efficacy of the Landmarks Preservation Commission and the designation of historic landmarks within the unincorporated areas of the County.

In addition, the General Plan makes the following recommendation:

If a CEQA analysis determines that a project will impact a cultural resource area (historic, cultural, or paleontological), the following guidelines will apply:

1. A literature search for valid archaeological or paleontological surveys shall be conducted (for each initial study of a public or private project).
2. A study of the project site shall be made by a qualified archaeologist or paleontologist who shall determine the scientific value of finds, if any, and a recommendation as to their preservation or disposition.
3. The County Historical Landmarks Commission must be notified of all cultural, historical, or paleontological findings.
4. All significant impacts to cultural resource sites must be mitigated to the greatest extent feasible, and a reasonable period of time must be allowed to salvage the site.

5. The integrity of significant historical features of the structure and/or site should be maintained to the largest extent possible.
6. The integrity of sightlines to the structure or site should be maintained.
7. Development adjacent to a cultural resource site should consider design guidelines and appropriate building design, setbacks, landscaping, and other factors that will protect the integrity of the cultural resource area.
8. Materials collected during surface surveys or salvage operations should be donated to an appropriate nonprofit institution. In the event the property owner wishes to retain possession of the artifacts found, it is desirable that archaeologists or paleontologist be allowed to study and photograph the artifacts.

City General Plans

The numerous cities encompassed by the EWMP program area all have their own respective city General Plans, some of which may contain policies that address cultural resources. As implementation of the individual structural BMP projects proceed, specific policies and objectives pertaining to cultural resources from applicable city general plans will be identified and evaluated on a project-by-project basis during subsequent CEQA environmental processes.

Paleontological Resources

Federal

A variety of federal statutes specifically address paleontological resources. They are generally applicable to a project if that project includes federally owned or federally managed lands, or involves a federal agency license, permit, approval, or funding. Federal legislative protection for paleontological resources stems from the Antiquities Act of 1906 (PL 59-209; 16 United States Code 431 et. seq.; 34 Stat. 225), which calls for protection of historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest on federal lands.

State

Paleontological resources are explicitly afforded protection by CEQA, specifically in Section V(c) of Appendix G, the "Environmental Checklist Form," which addresses the potential for adverse impacts to "unique paleontological resource[s] or site[s]." PRC Section 5097.5 specifies that any unauthorized removal of paleontological remains is a misdemeanor. Further, the California Penal Code Section 622.5 sets the penalties for the damage or removal of paleontological resources.

Professional Standards

The SVP has established standard guidelines for acceptable professional practices in the conduct of paleontological resource assessments and surveys, monitoring and mitigation, data and fossil recovery, sampling procedures, specimen preparation, identification, analysis, and curation. Most practicing professional paleontologists in the United States adhere closely to the SVP's assessment, mitigation, and monitoring requirements as specifically provided in its standard guidelines. Most California state regulatory agencies accept the SVP standard guidelines as a measure of professional practice.

3.4.3 Impact Analysis

The proposed program's potential impacts have been assessed using the CEQA Guidelines Appendix G Checklist. The following sections discuss the key issue areas identified in the CEQA Guidelines with respect to the program's potential effect on cultural resources.

Method of Analysis

This impact analysis is a preliminary, program-level assessment of potential impacts on important cultural resources that could occur as a result of implementation of the proposed program. Because this a program-level analysis, impacts on specific cultural resources that could result from individual projects or structural BMPs are not addressed in this document, but may need to be assessed through additional analysis as project implementation actions are developed and further defined.

The impacts and mitigation measures identified in this section address types of activities that could significantly impact cultural resources including archaeological sites, historic buildings and structures, and locations of importance to Native Americans. Proposed program facilities for structural BMPs include aboveground and belowground facilities, construction of which could result in impacts to cultural and paleontological resources. Program implementation actions that include these types of activities would be required to implement the identified mitigation measures in an effort to reduce any impacts to a less-than-significant level.

The identification of specific impacts and mitigation measures that are appropriate for a specific project implementation action will depend on both the nature of the cultural resources that are present and on the nature of the action. In some instances, mitigation measures must be developed in consultation with multiple agencies and other interested parties.

Thresholds of Significance

For the purposes of this Program Environmental Impact Report (PEIR) and consistency with Appendix G of the CEQA Guidelines, applicable local plans, and agency and professional standards, the program would have a significant impact on cultural resources if it would:

- Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5.
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
- Disturb any human remains, including those interred outside of a formal cemetery.

According to CEQA Guidelines (CCR Title 14, 15064.4), a project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment (CCR Title 14, 15064.4(b)). The Guidelines further state

that a substantial adverse change in the significance of a resource means the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historic resource would be materially impaired. Actions that would materially impair the significance of a historical resource are any actions that would demolish or adversely alter those physical characteristics of a historical resource that convey its historical significance and qualify it for inclusion in the CRHR or in a local register or survey that meet the requirements of PRC Sections 5020.1(k) and 5024.1(g).

Identified cultural resources that may be impacted by individual structural BMP projects would be evaluated for eligibility for listing on the CRHR or local historic register. Cultural resources that are eligible for the CRHR or local historic register are considered to be significant historic resources. Cultural resources would also be evaluated for their qualification as a unique archaeological resource under CEQA. Cultural resources that are identified within individual structural BMP project areas subject to federal approval, permits, or funding would also be evaluated for eligibility for listing on the NRHP. Cultural resources determined to be eligible for listing on the NRHP are automatically eligible for listing on the CRHR and are considered to be significant cultural resources.

Paleontological resources are also afforded protection by CEQA. Appendix G (Part V) of the CEQA Guidelines provides guidance relative to significant impacts on paleontological resources. A project will have a significant impact on the environment if it adversely affects a paleontological resource or site, or a unique geological feature.

Program Impact Discussion

Historical Resources

Impact 3.4-1: The proposed program could cause a substantial adverse change in the significance of an historical resource as defined in §15064.5.

Structural (Regional, Centralized, and Distributed) BMPs

Distributed BMPs are most likely to be implemented in high-density urban, commercial, industrial, and transportation areas where they would either replace or improve upon existing stormwater infrastructure. These types of BMPs are generally “retrofit” type projects that replace existing impervious surfaces with pervious surfaces such as bioinfiltration cells, bioswales, porous pavement, and filter strips that tie into existing stormwater management systems. These projects may also augment the existing stormwater management systems with additional inlet screens, filter media systems, sediment removal systems, and diversions to sanitary sewer lines. Ground disturbance for distributed BMPs is typically less than 1 to 2 acres in extent, but may extend in some limited applications up to 5 acres where space is available. Centralized structural BMPs collect, store, treat, and filter stormwater from multiple parcels and much larger drainage areas. Like centralized BMPs, regional BMPs can be implemented in a broad range of land use types, from high-density urban to open space, and can have multiple benefits (habitat, recreation, aesthetics, etc.). Centralized and regional structural BMPs require greater footprints for construction and implementation.

Built Environment Resources

Any historic built environment resources (including buildings and structures) that are 50 years or older within the program area may be eligible for listing in the CRHR or local register, although such resources have not yet been identified. Historic built environment resources that are found eligible for the CRHR or local register would be considered historical resources under CEQA. A project that causes a substantial adverse change in the significance of a built environment resource that qualifies as an historical resource (i.e., physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings) would result in a significant impact to historical resources.

Implementation of structural BMPs occurring under the proposed program could impact significant historic built environment resources that exist within the program area. Built environment resources can include not only buildings and structures, but also built infrastructure such as concrete channels, dams, sidewalks, and roads. Impacts could include not only physical demolition or alteration of built environment resources, but also changes to the historic setting of a resource, and impacts that may adversely affect that ability of a resource to convey its significance. **Mitigation Measure CUL-1** would reduce impacts to significant historic built resources. However, in some circumstances, documentation of an historical resource, by way of historic narrative, photographs, or architectural drawings, as mitigation for the effects of demolition of the resource will not mitigate the effects to a point where clearly no significant effect on the environment would occur (CEQA Guidelines § 15126.4(b)(2)). Therefore, implementation of the proposed program may ultimately result in a "substantial adverse change" to historic resources through various development activities for which no possible mitigation may be available to maintain the historic integrity of the affected resource or its surroundings.

Archaeological and Other Cultural Resources

Historical resources can include not only buildings and structures, as discussed above, but also any object, site area, place, record, or manuscript which a lead agency determines to be historically significant, or which is listed in or determined eligible for listing in the CRHR (CEQA Guidelines Section 15064.5(a)).

The program area has a long history of human occupation, dating to at least 9,000 years before the present. The abundant natural resources within the program area, including rivers, creeks, the Pacific Ocean, and the flora and fauna associated with these water features, would have attracted and sustained human settlement. Significant archaeological resources have been recorded throughout the program area, and numerous Native American village sites are known to have existed within the program area (Altschul et al., 2003; Gumprecht, 2001; McCawley, 1996). Archaeological sensitivity varies across the program area based on specific environmental factors, as discussed above, but archaeological resources could potentially be present in any individual structural BMP project area.

Known archaeological resources, as well as unknown and unrecorded archaeological resources that may be unearthed during construction activities associated with implementation of structural BMPs, could be impacted by individual projects. Some of these resources may qualify as

historical resources. Disturbance of previously unknown and unrecorded archaeological resources can occur even in already developed areas, as older buildings are known to have often been built on top of or within archaeological deposits. Although much of the program area is already heavily developed, potentially significant buried archaeological resources could nevertheless still exist within the program area, beneath and between structures and roads. If previously undiscovered artifacts or buried archaeological resources are uncovered during excavation or construction, significant impacts could occur.

Resources of importance to Native American Tribes or other cultural groups that may qualify as historical resources may also be present within individual EWMP areas. These resources may be identified through cultural resources studies and through consultation and coordination with local Native American Tribes or other cultural groups.

Given the above, the proposed program has the potential to adversely affect archaeological resources and other cultural resources that qualify as historical resources. Since the proposed program is at the programmatic level, specific project locations and design elements have yet to be finalized. As such, impacts to specific cultural resources are not addressed here. However, as program implementation actions move forward, individual projects would undergo additional CEQA review prior to construction. The program area should be considered sensitive for archaeological and other cultural resources, which should be taken into consideration during subsequent CEQA review. Any structural BMP that involves grading, trenching, excavation, vegetation removal, or other form of ground disturbance could impact archaeological resources or other cultural resources. Indirect impacts to archaeological resources, as a result of erosion or vandalism resulting from increased access to or visibility of resources, could also occur.

Implementation of **Mitigation Measures CUL-2**, **CUL-3**, and **CUL-4** would reduce impacts to archaeological and other cultural resources that qualify as historical resources. However, because the degree of impact and the applicability, feasibility, and success of these measures cannot be accurately predicted for each specific project at this time, the program level impact related to archaeological and cultural resources that qualify as historical resources is considered significant and unavoidable. In some circumstances, documentation and data recovery as mitigation for impacts to an historical resource of an archaeological nature will not mitigate the effects to a point where clearly no significant effect on the environment would occur. Data recovery as mitigation for historical resources that are eligible for the CRHR under Criterion 4, or that derive their significance from their scientific value or data potential, may effectively mitigate impacts to a less than significant level. However, for historical resources that are eligible to the CRHR under Criteria 1, 2, or 3, data recovery may not adequately mitigate impacts to those aspects of the resource that convey its significance and make it eligible for listing in the CRHR.

Impacts to historical resources would remain significant and unavoidable after implementation of Mitigation Measures CUL-1 through CUL-4 at this program-level analysis. It should be noted that not all individual EWMP projects may result in a significant and unavoidable impact with regard to historical resources, as the impacts associated with each individual EWMP project would be dependent on its location; the presence, nature, and significance of any historical

resources within the construction area; and specific impacts to historical resources. It is anticipated that the implementing agencies of the EWMP projects would, through the environmental review process, consider each discretionary EWMP project on a case-by-case basis to ascertain whether an individual project would impact cultural resources. Therefore, the identification of a significant and unavoidable program-level impact in this PEIR does not preclude the finding of future less-than-significant impacts for the individual structural BMP projects occurring in the EWMP areas.

Mitigation Measures:

CUL-1: For individual EWMP projects that could impact buildings or structures (including infrastructure) 45 years old or older, implementing agencies shall ensure that a historic built environment survey is conducted or supervised by a qualified historian or architectural historian meeting the Secretary of the Interior's Professional Qualification Standards for Architectural History. Historic built environment resources shall be evaluated for their eligibility for listing in the CRHR or local register prior to the implementing agency's approval of project plans. If eligible resources that would be considered historical resources under CEQA are identified, demolition or substantial alteration of such resources shall be avoided. If avoidance is determined to be infeasible, the implementing agency shall require the preparation of a treatment plan to include, but not be limited to, photo-documentation and public interpretation of the resource. The plan will be submitted to the implementing agency for review and approval prior to implementation.

CUL-2: Implementing agencies shall ensure that individual EWMP projects that require ground disturbance shall be subject to a Phase I cultural resources inventory on a project-specific basis prior to the implementing agency's approval of project plans. The study shall be conducted or supervised by a qualified archaeologist, defined as an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology, and shall be conducted in consultation with the local Native American representatives expressing interest. The cultural resources inventory shall include a cultural resources records search to be conducted at the South Central Coastal Information Center; scoping with the NAHC and with interested Native Americans identified by the NAHC; a pedestrian archaeological survey where deemed appropriate by the qualified archaeologist; and formal recordation of all identified archaeological resources on California Department of Parks and Recreation 523 forms and significance evaluation of such resources presented in a technical report following the guidelines in *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format*, Department of Parks and Recreation, Office of Historic Preservation, State of California, 1990.

If potentially significant archaeological resources are encountered during the survey, the implementing agency shall require that the resources are evaluated by the qualified archaeologist for their eligibility for listing in the CRHR and for significance as a historical resource or unique archaeological resource per CEQA Guidelines Section 15064.5. Recommendations shall be made for treatment of these resources if found to be significant, in consultation with the implementing agency and the appropriate Native American groups

for prehistoric resources. Per CEQA Guidelines Section 15126.4(b)(3), preservation in place shall be the preferred manner of mitigation to avoid impacts to archaeological resources qualifying as historical resources. Methods of avoidance may include, but shall not be limited to, project reroute or redesign, project cancellation, or identification of protection measures such as capping or fencing. Consistent with CEQA Guidelines Section 15126.4(b)(3)(C), if it is demonstrated that resources cannot be avoided, the qualified archaeologist shall develop additional treatment measures, which may include data recovery or other appropriate measures, in consultation with the implementing agency, and any local Native American representatives expressing interest in prehistoric or tribal resources. If an archaeological site does not qualify as an historical resource but meets the criteria for a unique archaeological resource as defined in Section 21083.2, then the site shall be treated in accordance with the provisions of Section 21083.2.

CUL-3: The implementing agency shall retain archaeological monitors during ground-disturbing activities that have the potential to impact archaeological resources qualifying as historical resources or unique archaeological resources, as determined by a qualified archaeologist in consultation with the implementing agency, and any local Native American representatives expressing interest in the project. Native American monitors shall be retained for projects that have a high potential to impact sensitive Native American resources, as determined by the implementing agency in coordination with the qualified archaeologist.

CUL-4: During project-level construction, should subsurface archaeological resources be discovered, all activity in the vicinity of the find shall stop and a qualified archaeologist shall be contacted to assess the significance of the find according to CEQA Guidelines Section 15064.5. If any find is determined to be significant, the archaeologist shall determine, in consultation with the implementing agency and any local Native American groups expressing interest, appropriate avoidance measures or other appropriate mitigation. Per CEQA Guidelines Section 15126.4(b)(3), preservation in place shall be the preferred means to avoid impacts to archaeological resources qualifying as historical resources. Methods of avoidance may include, but shall not be limited to, project reroute or redesign, project cancellation, or identification of protection measures such as capping or fencing. Consistent with CEQA Guidelines Section 15126.4(b)(3)(C), if it is demonstrated that resources cannot be avoided, the qualified archaeologist shall develop additional treatment measures, such as data recovery or other appropriate measures, in consultation with the implementing agency and any local Native American representatives expressing interest in prehistoric or tribal resources. If an archaeological site does not qualify as an historical resource but meets the criteria for a unique archaeological resource as defined in Section 21083.2, then the site shall be treated in accordance with the provisions of Section 21083.2.

Significance Determination: Significant and unavoidable The application of these mitigation measures to specific BMP types and categories is identified in Table 3.4-2.)

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities, demolition, or any ground disturbance. Consequently, implementation of non-structural BMPs would not impact historical resources.

Mitigation Measures: None required

Significance Determination: No impact

Unique Archaeological Resources

Impact 3.4-2: The program could cause a substantial adverse change in the significance of unique archaeological resources as defined in §15064.5.

Structural (Regional, Centralized, and Distributed) BMPs

As discussed under Impact 3.4-1, the program area should be considered sensitive for archaeological resources. Archaeological sensitivity varies across the program area based on specific environmental factors, as discussed above, but archaeological resources could potentially be present in any individual structural BMP project area. Known archaeological resources, as well as unknown and unrecorded archaeological resources that may be unearthed during construction activities associated with implementation of structural BMPs, could be impacted by individual EWMP projects. Any structural BMP which involves grading, trenching, excavation, vegetation removal, or other form of ground disturbance could impact archaeological resources, some of which may qualify as unique archaeological resources. Implementation of **Mitigation Measures CUL-2**, **CUL-3**, and **CUL-4** would require that unique archaeological resources be treated in accordance with the provisions of Section 21083.2, which would reduce impacts to unique archaeological resources to a less-than-significant level.

Mitigation Measures: Implement **Mitigation Measures CUL-2**, **CUL-3**, **CUL-4**

Significance Determination: Less than significant (The application of these mitigation measures to specific BMP types and categories is identified in Table 3.4-2.)

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities or any ground disturbance. Consequently, implementation of non-structural BMPs would not impact unique archaeological resources.

Mitigation Measures: None required

Significance Determination: No impact

Paleontological Resources

Impact 3.4-3: The program could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Structural (Regional, Centralized, and Distributed) BMPs

As discussed, the program area is underlain by a number of high or undetermined paleontological sensitivity units. These sensitive geological formations/units may contain significant paleontological resources. The Los Angeles County General Plan Conservation Element requires that a paleontologist be retained to mitigate potential impacts to nonrenewable paleontological resources. However, significant paleontological resources can be uncovered even in areas of low sensitivity, and it is possible that ground-disturbing construction activities associated with implementation of the program could result in the inadvertent discovery of paleontological resources, which could be a significant impact. Implementation of **Mitigation Measures CUL-5** and **CUL-6** would reduce these impacts to less-than-significant levels at this program-level of analysis.

Mitigation Measures:

CUL-5: For individual structural BMP projects that require ground disturbance, the implementing agency shall evaluate the sensitivity of the project site for paleontological resources. If deemed necessary, the implementing agency shall retain a qualified paleontologist to evaluate the project and provide recommendations regarding additional work, potentially including testing or construction monitoring.

CUL-6: In the event that paleontological resources are discovered during construction, the implementing agency shall notify a qualified paleontologist. The paleontologist will evaluate the potential resource, assess the significance of the find, and recommend further actions to protect the resource.

Significance Determination: Less than significant (The application of these mitigation measures to specific BMP types and categories is identified in Table 3.4-2.)

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities or any ground disturbance. Consequently, implementation of non-structural BMPs would not impact paleontological resources.

Mitigation Measures: None required

Significance Determination: No impact

Human Remains

Impact 3.4-4: The program could disturb any human remains, including those interred outside of a formal cemetery.

Structural (Regional, Centralized, and Distributed) BMPs

Program-level development involving ground disturbance within the program area could impact human remains. In the event that human remains are discovered, including those interred outside of formal cemeteries, the human remains could be inadvertently damaged, which could be a significant impact. Implementation of **Mitigation Measure CUL-7** would reduce impacts to less-than-significant levels at this program-level of analysis.

Mitigation Measures:

CUL-7: The implementing agency shall require that, if human remains are uncovered during project construction, work in the vicinity of the find shall cease and the County Coroner shall be contacted to evaluate the remains, following the procedures and protocols set forth in Section 15064.5 (e)(1) of the CEQA Guidelines. If the County Coroner determines that the remains are Native American, the Coroner will contact the Native American Heritage Commission, in accordance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code 5097.98 (as amended by AB 2641). The NAHC will then designate a Most Likely Descendant of the deceased Native American, who will engage in consultation to determine the disposition of the remains.

Significance Determination: Less than significant (The application of this mitigation measure to specific BMP types and categories is identified in Table 3.4-2.)

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities or any ground-disturbance. Consequently, implementation of non-structural BMPs would not impact human remains.

Mitigation Measures: None required

Significance Determination: No impact

Cumulative Impact Discussion

Structural (Regional, Centralized, and Distributed) BMPs

The geographic area of analysis for cultural resources is defined as the jurisdictions within which the proposed program is located. This geographic scope of analysis is appropriate because the archaeological, historical, and paleontological resources within this radius are expected to be similar to those that occur on the individual project sites because of their proximity; similar

environments, landforms, and hydrology would result in similar land-use—and, thus, site types. Similar geology within this vicinity would likely yield fossils of similar sensitivity and quantity. This is a large enough area to encompass any effects of the program on cultural and paleontological resources that may combine with similar effects caused by other projects, and provides a reasonable context wherein cumulative actions could affect cultural and paleontological resources. The program could cause impacts on cultural and paleontological resources during the construction period or as a result of operation and maintenance or closure and decommissioning activities.

Cumulative impacts to cultural resources in the cultural resources geographic scope of analysis could occur if other existing or proposed projects, in conjunction with the proposed program, had or would have impacts on cultural resources that, when considered together, would be significant.

Regional and centralized BMPs will not be well distributed throughout the watershed because of the limited feasible and applicable sites; however, distributed BMPs, which may comprise the majority of the BMPs implemented under the EWMPs, will be better distributed. Therefore, while the distributed BMPs may have limited or no impact on cultural resources on a project-by-project basis, when taken together, they may impact cultural resources on a regional scale.

Los Angeles County contains a significant archaeological and historical record that, in many cases, has not been well documented or recorded. There is the potential for ongoing and future development projects in the vicinity to disturb landscapes that may contain known or unknown historical resources. Thus, potential construction impacts of the implementation of the proposed program, in combination with other projects in the area, could contribute to a cumulatively significant impact on historical resources. Mitigation measures are included in this PEIR to reduce potentially significant program impacts to historical resources during construction. While implementation of **Mitigation Measures CUL-1** through **CUL-4** would reduce impacts to historical resources, implementation of the proposed program may ultimately result in a substantial adverse change to historical resources through various development activities for which no possible mitigation may be available to maintain the historic integrity of the affected resource or its surroundings, and impacts to historical resources would remain significant and unavoidable at a program level. Therefore, the implementation of structural BMPs may contribute to a cumulatively significant environmental impact to historical resources.

Implementation of **Mitigation Measures CUL-2**, **CUL-3**, and **CUL-4** would require that unique archaeological resources be treated in accordance with the provisions of CEQA Section 21083.2, which would reduce impacts to unique archaeological resources to a less-than-significant level. Therefore, the program would not contribute to a cumulatively significant environmental impact to unique archaeological resources.

Excavation activities associated with the implementation of individual structural BMPs in conjunction with other projects in the area could contribute to the progressive loss of fossil remains, associated geological and geographic data, and fossil bearing strata, which is a potentially significant impact. However, the proposed program would have a less-than-significant impact to paleontological resources with incorporation of **Mitigation Measure CUL-5** and

CUL-6. Therefore, with the implementation of Mitigation Measures CUL-5 and CUL-6, cumulative impacts to paleontological resources would be less than significant.

Furthermore, implementation of **Mitigation Measure CUL-7** provides a mechanism to reduce impacts to human remains should they be encountered during ground-disturbing activities, and cumulative impacts to human remains would be less than significant.

With implementation of applicable regulatory requirements and **Mitigation Measures CUL-1** through **CUL-7**, the implementation of the proposed program would not have a cumulatively considerable contribution to impacts to unique archaeological resources, paleontological resources, or human remains from decommissioning activities. Implementation of the proposed program may contribute to a cumulatively significant environmental impact to historical resources.

Mitigation Measures: Implement **Mitigation Measures CUL-1** through **CUL-7**

Significance Determination: Significant and unavoidable (The application of these mitigation measures to specific BMP types and categories is identified in Table 3.4-2.)

Non-Structural BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities or any ground disturbance. Consequently, implementation of non-structural BMPs would not contribute to a cumulatively significant environmental impact to cultural resources.

Mitigation Measures: None required

Significance Determination: No impact

3.4.4 Summary of Impact Assessment

Table 3.4-2 shows a summary of the structural BMPs requiring mitigation.

TABLE 3.4-2
SUMMARY OF CULTURAL RESOURCE IMPACTS REQUIRING MITIGATION MEASURES

	Thresholds of Significance					
Structural BMPs	**Built Environment Resources**	**Archaeological and Other Cultural Resources**	**Unique Archaeological Resources**	**Paleontological Resources**	**Human Remains**	**Cumulative Impacts**
Applicable Mitigation Measures:	**CUL-1 through CUL-4**	**CUL-1 through CUL-4**	**CUL-2; CUL-3; CUL-4**	**CUL-5 and CUL-6**	**CUL-7**	**CUL-1 through CUL-7**
Regional BMPs						
Regional Detention and Infiltration	Yes	Yes	Yes	Yes	Yes	Yes
Regional Capture, Detention and Use	Yes	Yes	Yes	Yes	Yes	Yes
Centralized BMP						
Bioinfiltration	Yes	Yes	Yes	Yes	Yes	Yes
Constructed Wetlands	Yes	Yes	Yes	Yes	Yes	Yes
Treatment/Low-Flow Diversions	Yes	Yes	Yes	Yes	Yes	Yes
Creek, River, Estuary Restoration	Yes	Yes	Yes	Yes	Yes	Yes
Distributed BMPs						
Site-Scale Detention	Yes	Yes	Yes	Yes	Yes	Yes
LID – Infiltration/Filtration BMPs – Porous Pavement, Green Streets, Bioswale/Filter Strips, downspout disconnects	Yes	Yes	Yes	Yes	No	Yes
LID – Green Infrastructure – Capture and Use – Cisterns, Rain Barrels, Green roofs, Planter Boxes [(1)]	Yes	Yes	Yes	No	No	Yes
Flow-through Treatment BMPs[(1)]	Yes	Yes	Yes	Yes	No	Yes
Source-Control Treatment BMPs (catch basin inserts/screens, hydrodynamic separators, gross solids removal devices)[(1)]	Yes	Yes	Yes	No	No	Yes
Low-Flow Diversions	Yes	Yes	Yes	Yes	No	Yes

[(1)] These type of BMPs are generally built as retrofits to existing MS4 systems and would require in most cases little or no excavation.

NOTE: These conclusions are based on typical location and need for ground disturbance.

3.5 Geologic and Mineral Resources

This section addresses the potential impacts to geology, soils, and seismicity associated with implementation of the proposed program. This section provides a description of the regional geology, a summary of the regulations related to geologic and seismic hazards, and an evaluation of the potential impacts that may result from implementing the proposed program and identifies mitigation measures to minimize potential effects. This section also evaluates whether the proposed program would result in a loss of available mineral resources.

3.5.1 Environmental Setting

Regional

The project area is located in the center portion of the Transverse Ranges Geomorphic Province (California Geological Survey [CGS], 2002b). California's geomorphic provinces are naturally defined geologic regions that display a distinct landscape or landforms with unique, defining features based on geology, faults, topographic relief, and climate. This province consists of an east-west trending series of steep mountain ranges and valleys that deviate from the normal northwest trend of other Coastal California geomorphic provinces due to intense north-south compression squeezing the ranges within this province. The east-west structure of the Transverse Ranges is oblique to the normal northwest trend of coastal California, hence the name "Transverse." The province extends offshore to include San Miguel, Santa Rosa, and Santa Cruz islands. The eastern extension, the San Bernardino Mountains, has been displaced to the south along the San Andreas Fault. As a result, this is one of the most rapidly rising regions on earth and it is seismically active. Cenozoic petroleum-rich sedimentary rocks have been folded and faulted, making this an important oil-producing area in the United States. The Los Angeles Basin is in the southern part of the province and separates the Transverse Ranges Province from the Peninsular Ranges Provinces to the south.

Project Area

Topography

The project area is bounded on the northwest by the Santa Monica Mountains, on the northeast by the San Gabriel Mountains, on the southeast by the Orange County coastal plain, and on the west and southwest by the Pacific Ocean. The project area largely consists of the watersheds for the Los Angeles, Santa Clara, San Gabriel Rivers, Santa Monica Bay, and the Dominguez Channel, and includes the Los Angeles Basin and the San Fernando and Santa Clarita Valleys. Topography varies regionally from sea level at the coast to several thousand feet in the surrounding mountains.

Geology

The project area geology consists of Tertiary and older (1.6 million years and older) bedrock mountain ranges and hills surrounding and separating Quaternary and younger (1.6 million years and younger) sediment-filled basins and valleys, as shown in **Figure 3.5-1**, Regional Geology (U.S. Geological Survey [USGS], 1990). To the northwest of the project area, the Santa Monica Mountains have a granitic and metamorphic core covered with marine sedimentary sandstone, shale, and conglomerate rocks. To the northeast of the project area, the San Gabriel Mountains consist mostly of granitic rocks with some metamorphic gneiss and schist rocks. Several lower hills separate the Los Angeles Basin and the San Fernando and Santa Clara Valleys. Marine sediments and erosion of the surrounding mountain ranges and hills within the project area have filled the intervening basins and valleys with thick deposits of sediments. The recent surface sediments are mostly sand and silt. Much of the basin and valley areas have been highly disturbed through development and much of the surface materials consist of undocumented fills.

Seismicity and Faults

This section characterizes the region's existing faults, describes historical earthquakes, estimates the likelihood of future earthquakes, and describes probable groundshaking effects.

Earthquake Terminology and Concepts

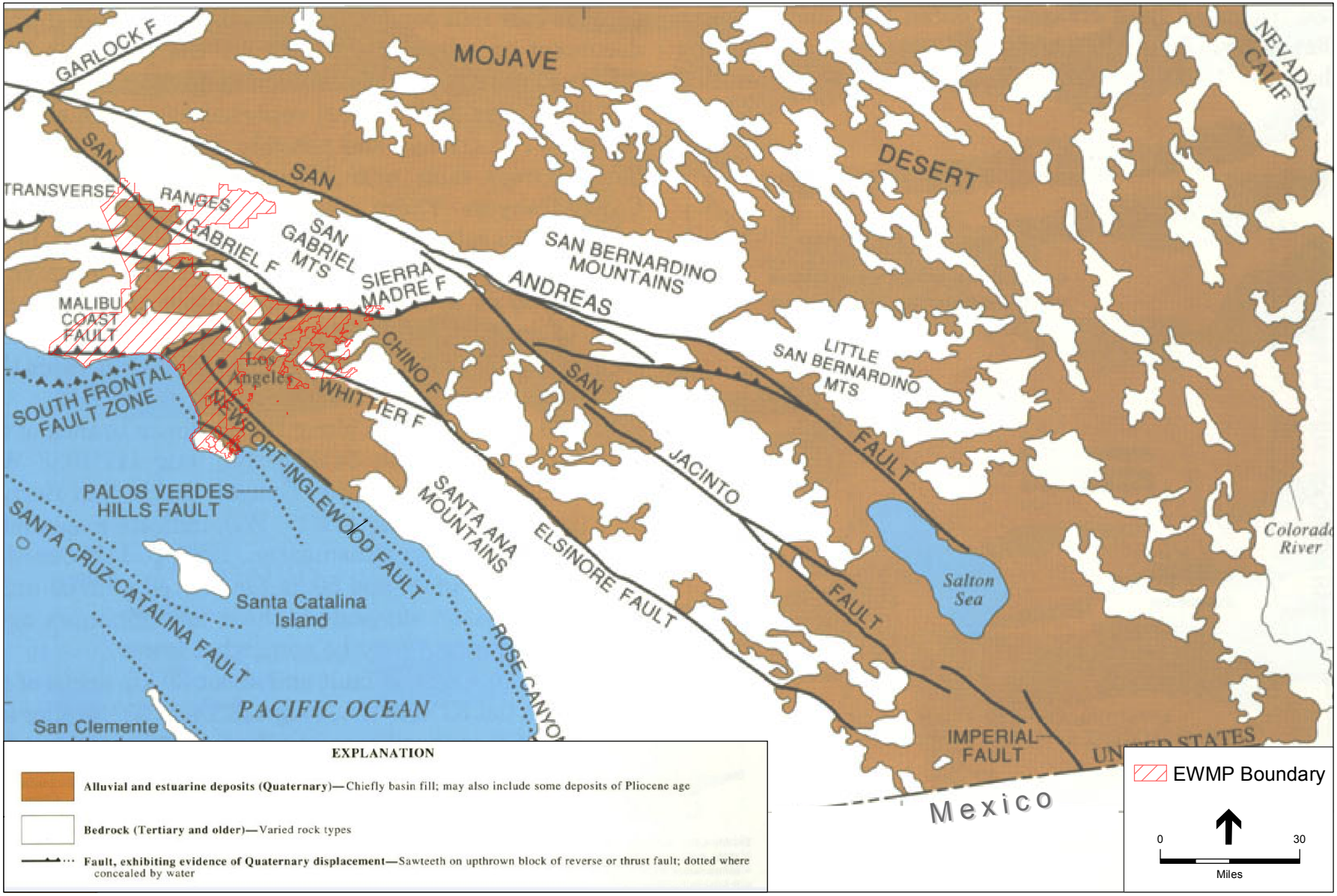
Earthquake Mechanisms and Fault Activity

Faults are planar features within the earth's crust that have formed to release strain caused by the dynamic movements of the earth's major tectonic plates. An earthquake on a fault is produced when these strains overcome the inherent strength of the earth's crust, and the rock ruptures. The rupture causes seismic waves that propagate through the earth's crust, producing the groundshaking effect known as an earthquake. The rupture also causes variable amounts of slip along the fault, which may or may not be visible at the earth's surface.

The State of California defines an active fault as one that has had surface displacement within Holocene time (the last 11,000 years).

Earthquake Magnitude

When an earthquake occurs along a fault, its size can be determined by measuring the energy released during the event. A network of seismographs records the amplitude and frequency of the seismic waves that an earthquake generates. The Richter magnitude (ML) of an earthquake represents the highest amplitude measured by the seismograph at a distance of 100 kilometers from the epicenter. While the Richter magnitude scale was historically the primary measure of earthquake magnitude, seismologists now use the moment magnitude (Mw) scale as the preferred way to express the size of an earthquake (USGS, 2009). The Mw scale is related to the physical characteristics of a fault, including the rigidity of the rock, the size of fault rupture, and the style of movement or displacement across the fault.



SOURCE: USGS, 1990

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Figure 3.5-1

Regional Geology

Peak Ground Acceleration

A common measure of ground motion at any particular site during an earthquake is the peak ground acceleration (PGA) (USGS, 2007b). The PGA for a given component of motion is the largest value of horizontal acceleration obtained from a seismograph. PGA is expressed as the percentage of the acceleration due to gravity (g), which is approximately 980 centimeters per second squared. In terms of automobile acceleration, one "g" of acceleration is equivalent to the motion of a car traveling 328 feet from rest in 4.5 seconds. For comparison purposes, the maximum PGA value recorded during the Mw 6.7 1994 Northridge earthquake was 1.8 g, among the highest ever instrumentally recorded in an urban area in North America. Unlike measures of magnitude, which provide a single measure of earthquake energy, PGA varies from place to place and is dependent on the distance from the epicenter and the character of the underlying geology (e.g., hard bedrock, soft sediments, or artificial fills).

Modified Mercalli Intensity Scale

The Modified Mercalli Intensity Scale assigns an intensity value based on the observed effects of groundshaking produced by an earthquake (CGS, 2002a). Unlike measures of earthquake magnitude and PGA, the Modified Mercalli Intensity Scale is qualitative in nature in that it is based on actual observed effects rather than measured values. Similar to PGA, Modified Mercalli values for an earthquake at any one place can vary depending on the earthquake's magnitude, the distance from its epicenter, the focus of its energy, and the type of geologic material. The Modified Mercalli values for intensity range from I (earthquake not felt) to XII (damage nearly total), and intensities ranging from IV to X can cause moderate to significant structural damage. Because the Modified Mercalli scale is a measure of groundshaking effects, intensity values can be correlated to a range of average PGA values, as shown in **Table 3.5-1**.

Faults and Historical Earthquake Activity

The project area is located in a seismically active region of California. Major earthquakes have affected the region in the past and are expected to occur in the near future on one of the active faults in the area. The San Andreas transform fault system, which forms the boundary between the North American and Pacific tectonic plates, is responsible for the highly seismic nature of Southern California. The fault bends in an east-west direction from the Southern end of the San Joaquin Valley to the eastern end of the San Bernardino Mountains. This portion of the San Andreas Fault system is referred to as the "Big Bend" and generates major compression forces, which in turn create many smaller fault branches (SCEC, 2011). The active faults in the vicinity of the project area are shown in **Figure 3.5-2**, Local Faults with Recent Movement.

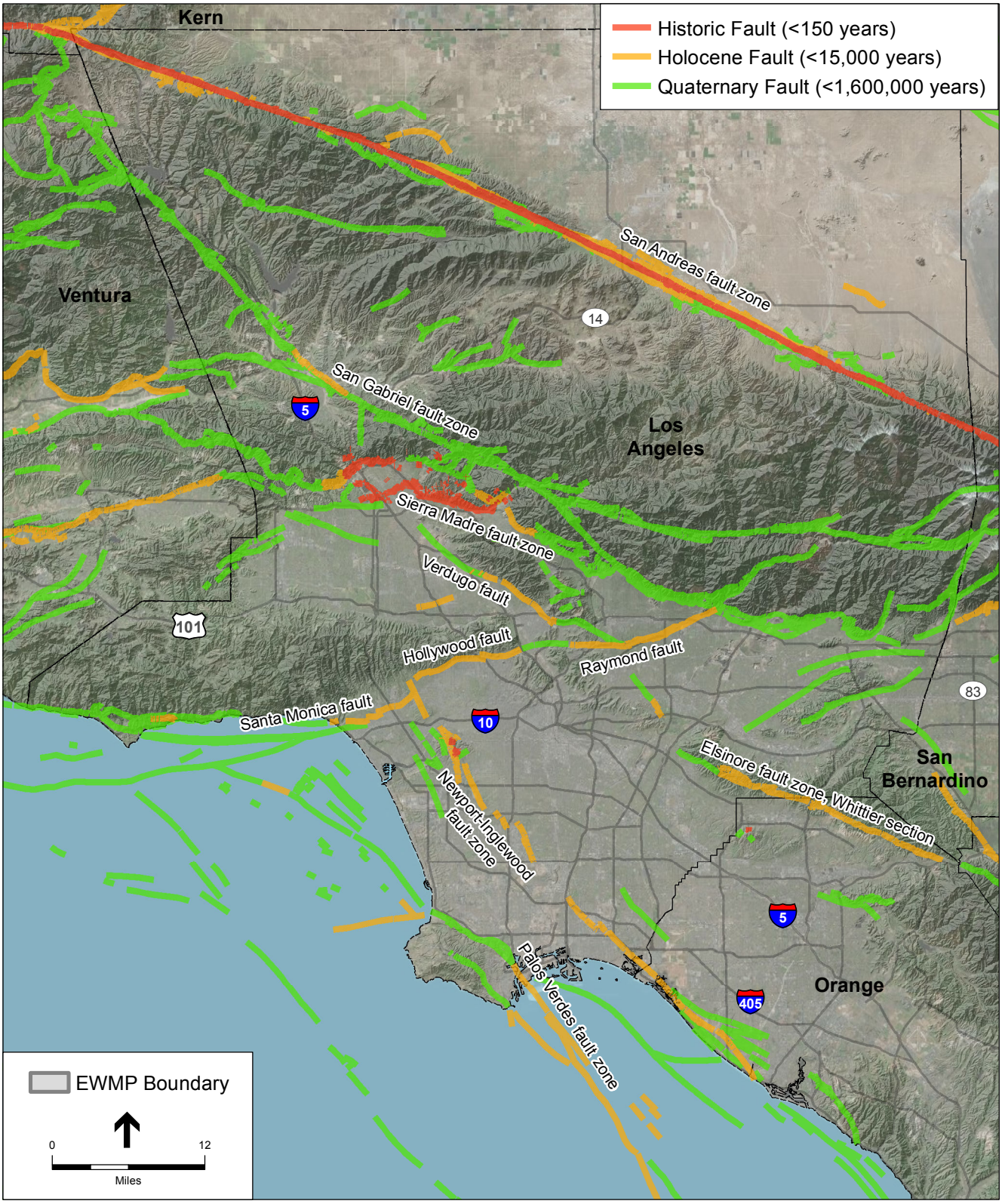
Table 3.5-2 identifies both historically active and active faults in the vicinity of the project area and their corresponding characteristics that are capable of generating significant groundshaking at the proposed EMWP facilities. Two other fault characteristics—the maximum moment magnitude and the slip rate—are also important in determining the potential damage a fault may cause. The maximum moment magnitude of a fault refers to the largest possible earthquake it can experience given its existing geology (USGS, 2009). A fault's slip rate is defined as how fast the two sides of a fault are slipping relative to one another. The fastest moving faults have more and larger earthquakes than faults that do not slip as fast.

TABLE 3.5-1
MODIFIED MERCALLI INTENSITY SCALE

Intensity Value	Intensity Description	Average Peak Ground Acceleration[a]
I	Not felt except by a very few people under especially favorable circumstances.	< 0.0017 g
II	Felt only by a few people at rest, especially on upper floors on buildings. Delicately suspended objects may swing.	0.0017 – 0.014 g
III	Felt noticeably indoors, especially on upper floors of buildings, but many people do not recognize it as an earthquake. Standing automobiles may rock slightly, vibration similar to a passing truck. Duration estimated.	0.0017 – 0.014 g
IV	During the day felt indoors by many, outdoors by few. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing automobiles rocked noticeably.	0.014 – 0.039 g
V (Light)	Felt by nearly everyone, many awakened. Some dishes and windows broken; a few instances of cracked plaster; unstable objects overturned. Disturbances of trees, poles may be noticed. Pendulum clocks may stop.	0.035 – 0.092 g
VI (Moderate)	Felt by all, many frightened and run outdoors. Some heavy furniture moved; fallen plaster or damaged chimneys. Damage slight.	0.092 – 0.18 g
VII (Strong)	Everybody runs outdoors. Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable in poorly built or badly designed structures; some chimneys broken. Noticed by people driving automobiles.	0.18 – 0.34 g
VIII (Very Strong)	Damage slight in specially designed structures; considerable in ordinary substantial buildings, with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned. Sand and mud ejected in small amounts. Changes in well water. People driving automobiles disturbed.	0.34 – 0.65 g
IX (Violent)	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb; great in substantial buildings, with partial collapse. Buildings shifted off foundations. Ground cracked conspicuously. Underground pipes broken.	0.65 – 1.24 g
X (Very Violent)	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations; ground badly cracked. Rails bent. Landslides considerable from riverbanks and steep slopes. Shifted sand and mud. Water splashed (slopped) over banks.	> 1.24 g
XI (Very Violent)	Few, if any, masonry structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipelines completely out of service. Earth slumps and land slips in soft ground. Rails bent greatly.	> 1.24 g
XII (Very Violent)	Damage total. Practically all works of construction are damaged greatly or destroyed. Waves seen on ground surface. Lines of sight and level are distorted. Objects are thrown upward into the air.	> 1.24 g

[a] Value is expressed as a fraction of the acceleration due to gravity (g). Gravity (g) is 9.8 meters per second squared. 1.0 g of acceleration is a rate of increase in speed equivalent to a car traveling 328 feet from rest in 4.5 seconds.

SOURCES: Adapted from CGS, 2002a.



SOURCE: ESRI, USGS

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Figure 3.5-2

Local Faults with Recent Movement

TABLE 3.5-2
PRINCIPAL HISTORICALLY ACTIVE AND ACTIVE FAULTS IN THE PROJECT VICINITY

Fault	Maximum Moment Magnitude	Historical Seismicity (Last 150 Years)	Slip Rate (mm/year)	Fault Classification
San Andreas (Mojave section)	7.4	M 7.0 (1899)	30.0	Historically Active
Newport-Inglewood	7.1	M 6.4 (1933)	1.0	Historically Active
Sierra Madre (San Fernando section)	6.7	M 6.4 (1971)	2.0	Historically Active
Whittier-Elsinore	6.8	M 5.9 (1987)	2.5	Historically Active
Palos Verdes	7.3	-	3.0	Active
San Gabriel	7.2	-	1.0	Active
Verdugo	6.9	-	0.5	Active
Santa Monica	6.6	-	1.0	Active
Raymond	6.5	-	1.5	Active
Hollywood	6.4	-	1.0	Active

SOURCES: CGS, 2003, 2010

Seismic Hazards

Seismic hazards are generally classified into two categories: primary seismic hazards (surface fault rupture and groundshaking) and secondary seismic hazards (liquefaction and other types of seismically induced ground failure, along with seismically induced landslides).

Surface Fault Rupture

Seismically induced ground rupture is defined as the physical displacement of surface deposits in response to an earthquake's seismic waves. The magnitude, sense, and nature of fault rupture can vary for different faults or even along different strands of the same fault. Although future earthquakes could occur anywhere along the length of an active fault, only regional strike slip earthquakes of magnitude 6.0 or greater are likely to be associated with significant surface fault rupture and offset (CDMG and USGS, 1996). It is also important to note that unmapped subsurface fault traces could experience unexpected and unpredictable earthquake activity and fault rupture. Ground rupture is considered more likely along active faults, which are referenced in Figure 3.5-2 and Table 3.5-2. The highest potential for surface faulting is along existing fault traces that have had displacement in the last 11,000 years (Holocene Epoch).

Groundshaking

Groundshaking intensity varies depending on the overall earthquake magnitude, distance to the fault, focus of earthquake energy, and type of geologic materials underlying an area. Geologists and engineers attempt to predict earthquake ground acceleration at sites to improve the structural design of buildings so that the building can withstand earthquake motion and not collapse. A probabilistic seismic hazard assessment describes seismic hazard from earthquakes that geologists and seismologists agree could occur. The analysis takes into consideration the uncertainties in the

size and location of earthquakes and the resulting ground motions that can affect a particular site. Given the presence of the known active faults listed in Table 3.5-2, the entire project area is susceptible to seismic groundshaking.

Liquefaction and Lateral Spreading

Liquefaction is the rapid loss of shear strength experienced in saturated, predominantly granular soils below the groundwater level during strong earthquake groundshaking and occurs due to an increase in pore water pressure (VT, 2013). Liquefaction-induced lateral spreading is defined as the finite, lateral displacement of gently sloping ground as a result of pore-pressure buildup or liquefaction in a shallow underlying deposit during an earthquake. The occurrence of this phenomenon is dependent on many complex factors, including the intensity and duration of groundshaking, particle-size distribution, and density of the soil.

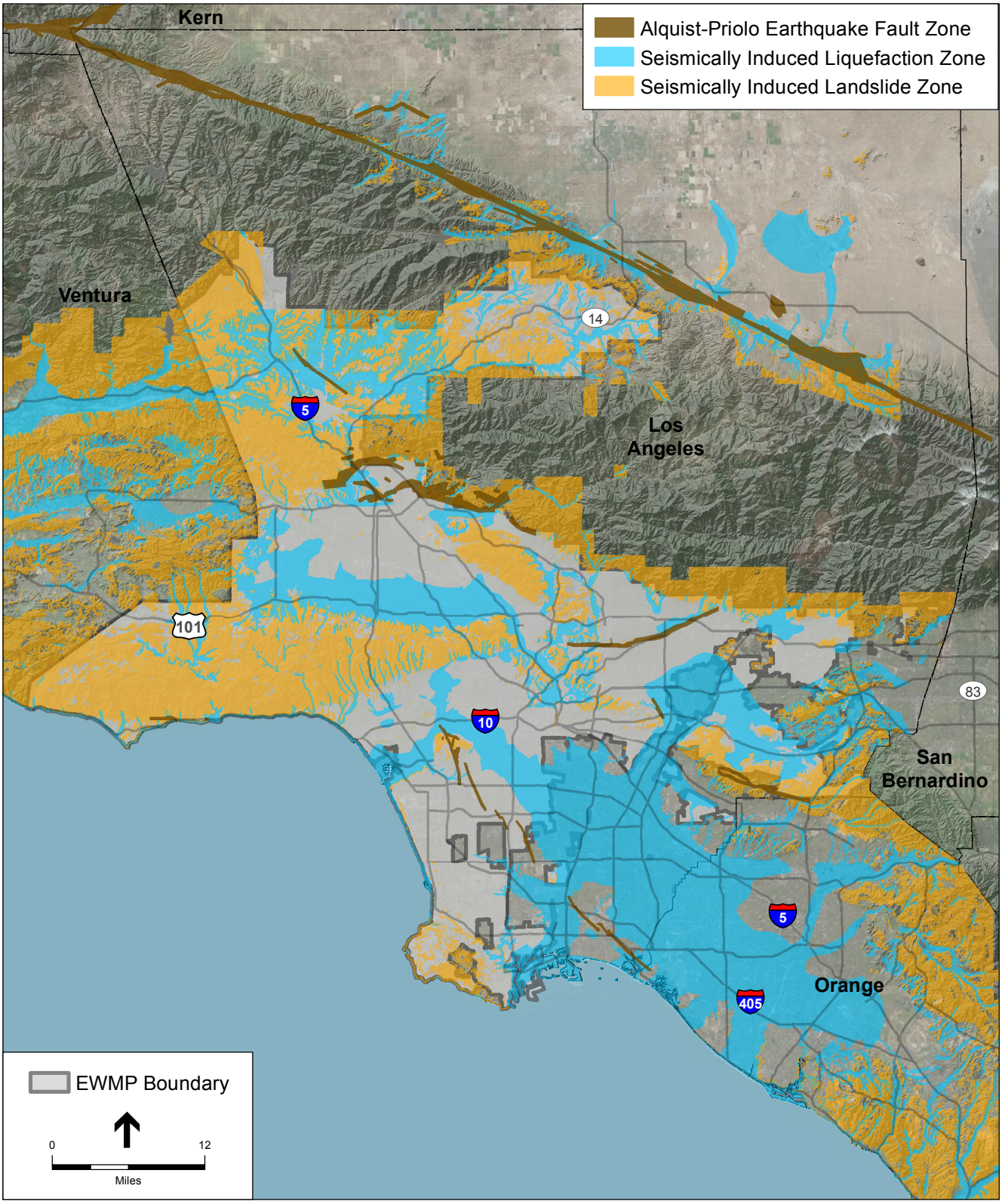
The potential damaging effects of liquefaction include differential settlement, loss of ground support for foundations, ground cracking, heaving and cracking of structures due to sand boiling, and buckling of deep foundations due to ground settlement. Dynamic settlement (i.e., pronounced consolidation and settlement from seismic shaking) may also occur in loose, dry sands above the water table, resulting in settlement of and possible damage to overlying structures. In general, a relatively high potential for liquefaction exists in loose, sandy soils that are within 50 feet of the ground surface and are saturated (below the groundwater table). Lateral spreading can move blocks of soil, placing strain on buried pipelines that can lead to leaks or pipe failure. **Figure 3.5-3**, Liquefaction and Landslide Potential Map, shows areas susceptible to seismically induced liquefaction and landslides within the county.

Earthquake-Induced Settlement

Settlement of the ground surface can be accelerated and accentuated by earthquakes. During an earthquake, settlement can occur as a result of the relatively rapid rearrangement, compaction, and settling of subsurface materials (particularly loose, noncompacted, and variable sandy sediments). Settlement can occur both uniformly and differentially (i.e., where adjoining areas settle at different rates). Areas are susceptible to differential settlement if underlain by compressible sediments, such as poorly engineered artificial fill. Earthquake-induced settlement could occur in the event of an earthquake and is a potential seismic hazard discussed further in the Impact and Mitigations Measures section.

Seismically Induced Landslides

Landslides are defined as the movement of rock, debris, or earth masses down a slope. Landslides are a form of “mass wasting,” which refers to any downslope movement of soil and rock under the direct influence of gravity (USGS, 2004). Landslide events include rock falls, topples, slides, spreads, and debris flows. Causes of landslides include rainfall, earthquakes, volcanic activity, groundwater changes, and alteration of a slope by man-made construction activities. Figure 3.5-3, Liquefaction and Landslide Potential Map shows areas susceptible to seismically induced liquefaction and landslides within the County.



SOURCE: ESRI Imagery, California Department of Conservation

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Figure 3.5-3

Liquefaction and Landslide Potential Map

Geologic Hazards

Geologic hazards include land movement of problematic soils, including landslides and other slope failures, expansive soils, erosion, settlement and subsidence, and sinkholes. These geologic hazards are discussed below.

Landslides and Slope Failure

As discussed, ground failure is dependent on the slope and geology as well as the amount of rainfall, excavation, or seismic activities. A slope failure is a mass of rock, soil, and debris displaced down a slope by sliding, flowing, or falling. Steep slopes and downslope creep of surface materials characterize landslide-susceptible areas. The areas shown in Figure 3.5-3 that are susceptible to seismically induced landslides and slope failure would also be susceptible to movement from non-seismic causes, such as excavation of the toe of a landslide area or the introduction of excessive water to the head of the landslide area.

Expansive Soils

Expansive soils are clay-rich and subsequently subject to changes in volume with changes in moisture (NRCS, 2013). This results in the shrinking and swelling of expansive soils from changes in water content. Expansive soils can exert pressure on building foundations, "heaving" or lifting buildings during periods of high moisture and resulting in the settlement of buildings during periods of low moisture. They can also exhibit high amounts of pressure on building foundations, resulting in lateral movement. Techniques exist to reduce effects of expansive soils. Such techniques include prewetting of the soil, which allows for pre-expansion of the soil with the idea that further pressure would be minimized, and structural slabs, which provide extra reinforcement to resist movement and distress caused by pressure of underlying expansive soil.

Erosion

Erosion is the wearing away of soil and rock by processes such as mechanical or chemical weathering, mass wasting, and the action of waves, wind, and underground water (NCRS, 2001a, 2001b). Excessive soil erosion can eventually damage infrastructure such as pipelines, wellheads, building foundations, and roadways. In general, granular soils with relatively low cohesion and soils located on steep topography have a higher potential for erosion. In addition, soils erosion can be accelerated beyond natural rates in areas with depleted plant cover and degraded soil structure resulting from excessive disturbance or reduced organic matter input. During construction, exposed soils within the project area would be susceptible to erosion due to stormwater runoff during the rainy season.

Settlement and Subsidence

Settlement of the ground surface can occur under static forces (e.g., due to gravity or groundwater removal) but can also be accelerated and accentuated by earthquakes. As stated previously, during an earthquake, settlement can occur from rapid rearrangement, compaction, and settling of subsurface materials (particularly loose, noncompacted, and variable sandy sediments). Settlement can occur both uniformly and differentially (i.e., where adjoining areas settle at different rates). In addition, areas are susceptible to differential settlement if underlain by compressible sediments, such as poorly engineered artificial fill or poorly graded gravels. The

sediments within the basins and valleys are typically alluvium comprised mostly of sand and silt. The potential for settlement would be higher in unconsolidated sediments and lower in consolidated or sediments reworked during development.

Subsidence is a form of settlement defined as the gradual settling or sudden sinking of the earth's surface due to subsurface movement of earth materials. Principle causes include either natural (tectonic movement) or human extraction activities, such as the removal of groundwater, oil, or gas. The extraction activities reduce the pore pressure, increase void spaces, and allow the underlying soils to compact.

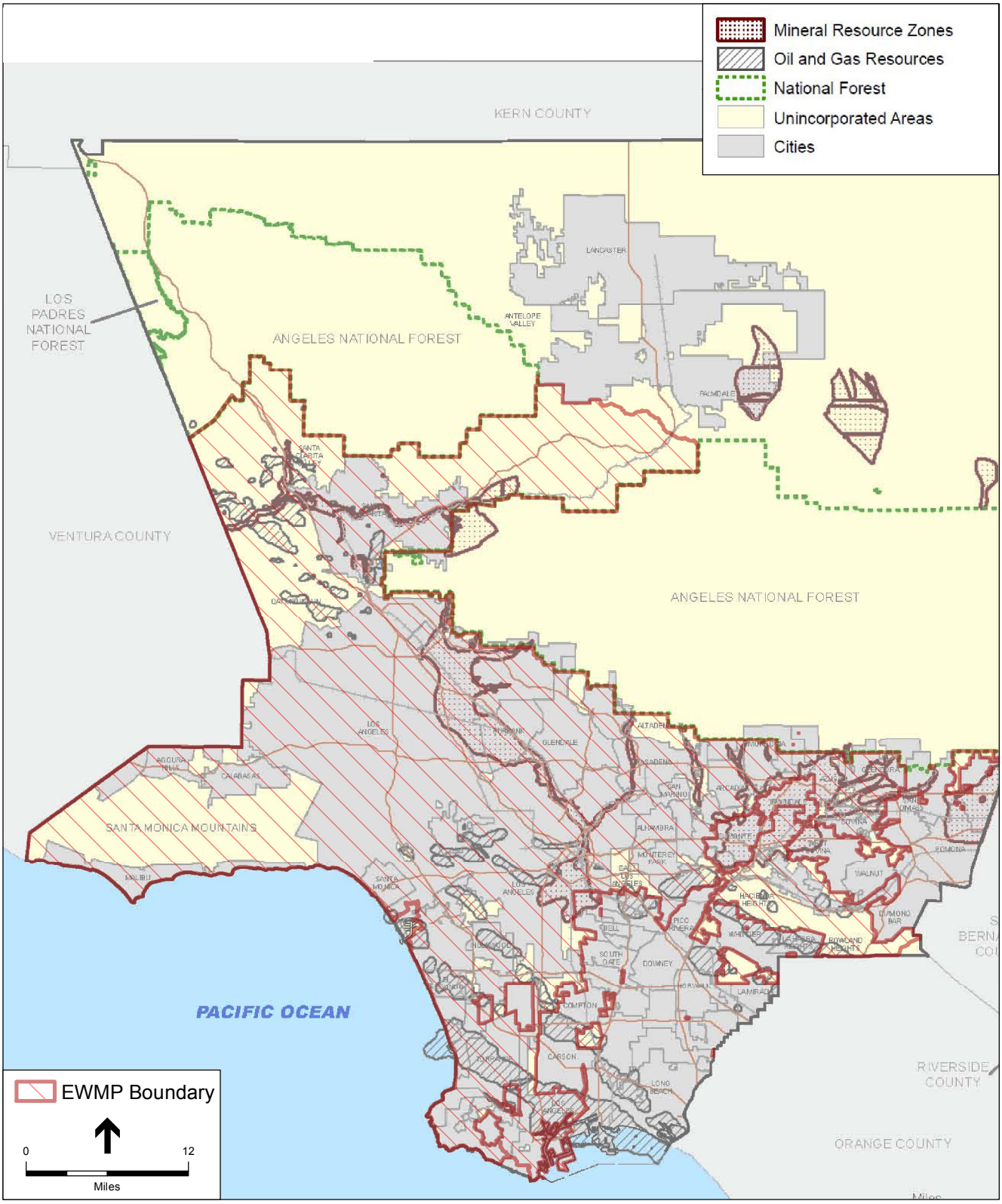
Sinkholes

A sinkhole is an area of ground which has no natural external surface drainage; all water stays inside the sinkhole and rains into the subsurface. Some sinkholes form so slowly they are not noticed, but others form suddenly when a collapse occurs. Sinkholes can have a dramatic effect if they occur in an urban setting. Sinkhole occurrence within Los Angeles County is generally limited but depends on several characteristics, including frequency of drought, type and structure of parent material, changes in groundwater dispersal, and localized topographic conditions, which can directly cause or exacerbate sinkholes (USGS, 2007a).

Mineral Resources

Mineral resources include commercially viable oil and gas deposits, and nonfuel mineral resources deposits. Nonfuel mineral resources include metals such as gold, silver, iron, and copper; industrial metals such as boron compounds, rare-earth elements, clays, limestone, gypsum, salt, and dimension stone; and construction aggregate, including sand, gravel, and crushed stone. **Figure 3.5-4**, Mineral Resources Map, shows the mineral and oil and gas resources zones identified in the draft County General Plan (County of Los Angeles, 2014c).

California is the largest producer of sand and gravel in the nation and the greater Los Angeles area is the nation's leading producer for its geographical size. The County has large quantities of sand and gravel, which are located close to the market. Major sand and gravel extraction sites are located in the alluvial fans of the Big Tujunga Wash in the San Fernando Valley and in the San Gabriel River near Irwindale. Other extraction areas are located in northern Los Angeles County in other washes.



SOURCE: County of Los Angeles, 2014c

LA County PEIR EWMP . 140474

Figure 3.5-4
Mineral Resources Map

3.5.2 Regulatory Framework

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to protect structures for human occupancy from the hazard of surface faulting (Bryant and Hart, 2007). In accordance with the Act, the State Geologist established regulatory zones—called earthquake fault zones—around the surface traces of active faults, and published maps showing these zones. Buildings for human occupancy[1] cannot be constructed across surface traces of faults that are determined to be active. Because many active faults are complex and consist of more than one branch that may experience ground-surface rupture, earthquake fault zones extend approximately 200 to 500 feet on either side of the mapped fault trace. Cities and counties must regulate certain development projects within the zones, which includes withholding permits until geologic investigations demonstrate that development sites are not threatened by future surface displacement. Surface fault rupture is not necessarily restricted within an Alquist-Priolo Zone. This applies to the project because structural Best Management Practices (BMPs) would be either prohibited within these fault zones or a geotechnical investigation would be required to develop design features to limit the impact from a seismic event.

Seismic Hazard Mapping Act

The Seismic Hazards Mapping Act was passed in 1990 following the Loma Prieta earthquake to reduce threats to public health and safety and to minimize property damage caused by earthquakes, strong ground shaking, liquefaction, landslides, or other hazards caused by earthquakes. This act requires the State Geologist to delineate various seismic hazard zones, and Cities, Counties, and other local permitting agencies to regulate certain development projects within these zones. Before a development permit is granted for a site within a seismic hazard zone, a geotechnical investigation must be conducted and appropriate mitigation measures incorporated into the project's design. For projects that would locate structures for human occupancy within designated Zones of Required Investigation, the Seismic Hazards Mapping Act requires project applicants to perform a site-specific geotechnical investigation to identify the potential site-specific seismic hazards and corrective measures, as appropriate, prior to receiving building permits. The CGS *Guidelines for Evaluating and Mitigating Seismic Hazards* (Special Publication 117A, CGS, 2008) provides guidance for evaluating and mitigating seismic hazards. The CGS is in the ongoing process of producing official maps based on USGS topographic quadrangles. This act applies to the program because structural BMPs would be either prohibited within these seismic hazard zones or a geotechnical investigation would be required to develop design features to limit the impact from a seismic event.

California Building Code

The California Building Code (CBC), which is codified in Title 24 of the California Code of Regulations, Part 2, was promulgated to safeguard the public health, safety, and general welfare

[1] A habitable building is any structure where human occupancy would exceed approximately 2,000 hours annually.

by establishing minimum standards related to structural strength, egress facilities, and general building stability. The purpose of the CBC is to regulate and control the design, construction, quality of materials, use/occupancy, location, and maintenance of all building and structures within its jurisdiction. Title 24 is administered by the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. Under State law, all building standards must be centralized in Title 24 or they are not enforceable. The provisions of the CBC apply to the construction, alteration, movement, replacement, and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures throughout California.

NPDES Construction General Permit

Construction associated with the proposed program would disturb more than one acre of land surface for centralized and regional structural BMPs (and possibly for those distributed structural BMPs larger than one acre), affecting the quality of stormwater discharges into waters of the United States. The proposed program would therefore be subject to the *NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (Order 2009-0009-DWQ, NPDES No. CAS000002, Construction General Permit [CGP]), as amended by Order 2010-0014-DWQ and Order 2012-0006-DWQ). The CGP regulates discharges of pollutants in stormwater associated with construction activity to waters of the United States from construction sites that disturb one or more acres of land surface, or that are part of a common plan of development or sale that disturbs more than one acre of land surface.

The CGP requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that includes specific BMPs designed to prevent pollutants from contacting stormwater and keep all products of erosion from moving off-site into receiving waters. The SWPPP BMPs are intended to protect surface water quality by preventing the off-site migration of eroded soil and construction-related pollutants from the construction area. The CGP and SWPPPs are described in more detail in Section 3.8, Hydrology and Water Quality.

Surface Mining and Reclamation Act of 1975

The State Surface Mining and Reclamation Act (SMARA), as amended, is the primary State law governing the conservation and development of mineral resources in California (Health and Safety Code, Division 2, Chapter 9, Section 2710, et seq.). Specifically, it mandates the development of mineral land classifications to help identify and protect mineral resources in areas within the State that are subject to urban expansion or other irreversible land uses that would preclude mineral extraction. After classification of mineral resource zones, SMARA provides for the designation of lands containing mineral deposits of regional or statewide significance, as discussed further below in the CGS section. In addition, SMARA was designed to provide guidelines for the proper reclamation of mineral lands. Local jurisdictions are required to enact specific procedures to guide mineral conservation and extraction at particular sites and to incorporate mineral resource management policies into their General Plans. SMARA applies to the program because structural BMPs would be either prohibited within these mineral resource areas or the local jurisdiction would be required to approve the placement of the structural BMP within the mineral resource zone.

California Geological Survey

Based on guidelines adopted by CGS, areas known as Mineral Resource Zones (MRZs) are classified according to the presence or absence of significant nonfuel mineral resources deposits. Nonfuel mineral resources include metals such as gold, silver, iron, and copper; industrial metals such as boron compounds, rare-earth elements, clays, limestone, gypsum, salt, and dimension stone; and construction aggregate including sand, gravel, and crushed stone. These classifications indicate the potential for a specific area to contain significant mineral resources.

The classification process involves the determination of Production-Consumption (P-C) Region boundaries, based on identification of active aggregate operations (Production) and the market area served (Consumption). The P-C regional boundaries are modified to include only those portions of the region that are urbanized or urbanizing and are classified for their aggregate content. An aggregate appraisal further evaluates the presence or absence of significant sand, gravel, or stone deposits that are suitable sources of aggregate. The classification of these mineral resources is a joint effort of the State and local governments. It is based on geologic factors and requires that the State Geologist classify the mineral resources area as one of the four MRZs, or Scientific Resource Zones (SZs) or Identified Resource Areas (IRAs), which are described as the following (County of Los Angeles, 2014c):

- MRZ-1: Areas where available geologic information indicates there is little or no likelihood for presence of significant mineral resources.
- MRZ-2: Areas where available geologic information indicates that significant measured or indicated resources are present or where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists.
- MRZ-3: Areas where available geologic information indicates known or inferred mineral occurrences of undetermined mineral resource significance.
- MRZ-4: Areas of no known mineral occurrences where geologic information does not rule out the presence or absence of significant mineral resources.
- SZ Areas: Containing unique or rare occurrences of rocks, minerals, or fossils that are of outstanding scientific significance shall be classified in this zone.
- IRA Areas: County or State Division of Mines and Geology Identified Areas where adequate production and information indicates that significant minerals are present.

Much of the area within the MRZ sites in Los Angeles was developed with structures prior to the MRZ classification and, therefore, is unavailable for extraction.

Local

County of Los Angeles General Plan

A General Plan is a basic planning document that, alongside the zoning code, governs development in a city or county. The State requires each city and county to adopt a General Plan with seven mandatory elements: land use, open space, circulation, housing, noise, conservation, and safety, along with any number of optional elements as appropriate. The proposed Enhanced

Watershed Management Programs (EWMPs, or "program") would be subject to the local plans and policies of the areas in which they are located.

The County of Los Angeles is currently updating their General Plan from the element versions adopted in the 1980s and 1990s; the new comprehensive plan is expected to be complete by late 2014. Below are the relevant goals and policies from both the existing General Plan (County of Los Angeles, 1980, 1990) and the Draft General Plan 2035 (County of Los Angeles, 2014a) which relate to the EWMPs.

Existing General Plan – Conservation and Open Space Element, Adopted 1980

Goal – Conserve Natural Areas: The variety and stability of plant and animal communities requires the preservation of important natural habitats. These are threatened by land development and the resultant extension of roads through environmentally sensitive areas.

Policy 12: Protect watershed, stream, and riparian vegetation to minimize water pollution, soil erosion and sedimentation, maintain natural habitats, and aid in ground water recharge.

Goal – Protect Mineral Resources: In the past, valuable mineral resources have been lost when incompatible urban uses were moved into productive areas. These reserves must be protected, and potential sites identified. At the same time, mineral production must not be allowed top conflict seriously with the goals of environmental protection.

Policy 15: Protect and conserve existing mineral resources, evaluate the extent and value of additional deposits, and require future reclamation of depleted sites.

Goal – Protect Public Safety: Our society places high value on human life. Development in areas subject to fires, floods, seismic and geologic hazards can result in loss of life and property, and increased governmental costs. Steep sloping lands are particularly vulnerable to fire, landslide, mudslide and erosion hazards. Protection and proper management of lands subject to these hazards are needed.

Policy 21: Restrict urban development in areas subject to seismic and geologic hazards.

Policy 22: Restrict urban development in flood prone areas, and thus avoid major new flood control works. Maintain natural watershed processes by regulating development in tributary watersheds. Minimize increased runoff, erosion, and siltation of streambeds that would limit the uses of streams and water bodies for recreation and other beneficial water-rated uses.

Existing General Plan – Safety Element, Seismic Hazards, Adopted 1990

Goal: Minimize injury and loss of life, property damage, and the social, cultural, and economic impacts caused by earthquake hazards.

Policy 1: Encourage the use of non-urbanized segments of active fault zones for rural and open space purposes.

Policy 2: Review projects proposing new expansion and construction of new development, especially critical facilities, and encourage them to avoid localities exposed to high earthquake hazards through such techniques as cluster development and transfer of development rights.

Policy 3: Continue enforcement of stringent site investigations (such as seismic, geologic, and soils investigations) and implementation of adequate hazard mitigation measures for development projects in areas of high earthquake hazard, especially those involving critical facilities. Do not approve proposals and projects which cannot mitigate safety hazards to the satisfaction of responsible agencies.

Existing General Plan – Safety Element, Geologic Hazards, Adopted 1990

Goal: Protect public safety and minimize the social and economic impacts from geologic hazards.

Policy 8: Review proposals and projects proposing new development and expansion of existing development in areas susceptible to land sliding, debris flow, and rock falls and in areas where collapsible or expansive soils are a significant problem; and disapprove projects which cannot mitigate safety hazards to the satisfaction of responsible agencies.

Policy 9: Continue to improve and enforce stringent slope investigation and design standards, and to apply innovative hazard mitigation and maintenance plans for development in hillside areas.

Policy 10: Upgrade slope maintenance measures and improve emergency response capability in hillside areas.

Existing General Plan – Land Use Element, Adopted 1980

Goal: Conserve resources and enhance environmental quality.

Policy 26: Protect known mineral resource reserves (including sand and gravel) from encroachment of incompatible land uses.

Draft General Plan, 2014 – Conservation and Natural Resources Element

Goal – C/NR-5: Protected and useable local surface water resources. (Some of these policies also apply to this geology section)

Policy C/NR 5.2: Require compliance by all County departments with adopted Municipal Separate Storm Sewer System (MS4), General Construction, and point source NPDES permits.

Policy C/NR 5.4: Actively engage in implementing all approved Enhanced Watershed Management Programs/Watershed Management Programs and Coordinated Integrated Monitoring Programs/Integrated Monitoring Programs or other County-involved TMDL implementation and monitoring plans.

Policy C/NR 5.6: Minimize point and non-point source water pollution. (This applies to this geology section because this policy would include minimizing erosion that generates sediment)

Goal – C/NR-10: Locally available mineral resources to meet the needs of construction, transportation, and industry.

Policy C/NR 10.1: Protect MRZ-2s and access to MRZ-2s from development and discourage incompatible adjacent land uses.

Draft General Plan, 2014 – Safety Element

Goal S 1: An effective regulatory system that prevents or minimizes personal injury, loss of life and property damage due to seismic and geotechnical hazards.

Policy S 1.1: Discourage development in Seismic Hazard and Alquist-Priolo Earthquake Fault Zones.

Policy S 1.3: Require developments to mitigate geotechnical hazards, such as soil instability and landsliding, in Hillside Management Areas through siting and development standards.

City General Plans

The numerous cities encompassed by the EWMP area all have their own respective city General Plans, which may contain policies that address geology and minerals. As implementation of the individual structural BMP projects proceeds, specific policies and objectives pertaining to geology and minerals from applicable city General Plans would be identified and evaluated on a project-by-project basis during subsequent CEQA environmental processes.

County of Los Angeles Building Code Section 113

Section 113 prohibits the location of most structures for human occupancy across the traces of active faults, and lessens the impacts of fault rupture.

County of Los Angeles Low Impact Development Manual

- The County of Los Angeles (County) prepared the 2014 Low Impact Development Standards Manual (LID Standards) to comply with the requirements of the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit for stormwater and non-stormwater discharges from the MS4 within the coastal watersheds of Los Angeles County (CAS004001, Order No. R4-2012-0175), referred to as the 2012 MS4 Permit (County of Los Angeles, 2014b). The LID

Standards provide guidance for the implementation of stormwater quality control measures in new development and redevelopment projects in unincorporated areas of the County with the intention of improving water quality and mitigating potential water quality impacts from stormwater and non-stormwater discharges. The November 2013 LID Ordinance became effective December 5, 2013.

City of Los Angeles Low Impact Development Manual

In November 2011, the City of Los Angeles adopted the Stormwater Low Impact Development (LID) Ordinance #181899) with the stated purpose of:

- Requiring the use of LID standards and practices in future developments and redevelopments to encourage the beneficial use of rainwater and urban runoff
- Reducing stormwater/urban runoff while improving water quality
- Promoting rainwater harvesting
- Reducing offsite runoff and providing increased groundwater recharge
- Reducing erosion and hydrologic impacts downstream
- Enhancing the recreational and aesthetic values in our communities

The City institutionalized the use of LID techniques for development and redevelopment projects. Subsequent to the adoption of the Stormwater LID Ordinance, the City prepared the *Development Best Management Practices Handbook, Low Impact Development Manual,* dated June 2011, to describes the required BMPs (City of Los Angeles, 2011).

Other Cities LID

Various other cities within the County also have LID standards or guidance. The goals, objectives, and content of the LID document are similar to that of the County and City of Los Angeles, and are not referenced here.

3.5.3 Impact Analysis

The proposed program's potential impacts were assessed using the California Environmental Quality Act (CEQA) Guidelines Appendix G Checklist. This section discusses the key issue areas identified in the CEQA Guidelines with respect to the project's potential effect to geologic and mineral resources.

Thresholds of Significance

For the purposes of this PEIR and consistency with Appendix G of the CEQA Guidelines, the project would have a significant impact on geologic resources if it would:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

  - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault;
  - Strong seismic groundshaking;
  - Seismic-related ground failure, including liquefaction; or
  - Landslides
- Result in substantial soil erosion or the loss of topsoil
- Be located on a geologic unit that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse
- Be located on expansive soils, as defined in 24 CCR 1803.5.3 of the CBC (2013)[2]
- Have soils incapable of adequately supporting the use of a septic tank or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater

The project would have a significant impact on mineral resources if it would:

- Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state
- Result in the loss of availability of a locally important mineral resource recovery site delineated on a local General Plan, Specific Plan, or other land use plan

Project Impact Discussion

Exposure to Seismic-Related Hazards

Impact 3.5-1: The proposed program could locate new facilities in areas susceptible to seismic impacts such as (1) rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault, (2) strong seismic groundshaking, or (3) seismically induced liquefaction or landslides, which could expose people, structures, or habitat to potential risk of loss, damage, injury, or death.

Structural (Regional, Centralized, and Distributed) BMPs

The EWMP area lies in a region that is seismically active and includes numerous active faults. In the event of an earthquake, fault rupture and seismic groundshaking could be experienced in the project area, as is typical throughout Southern California. The seismic groundshaking could trigger seismically induced liquefaction, landslides, or other slope failure. As discussed in Section 3.5.1, *Environmental Setting*, and shown in Figure 3.5-2, 10 active faults are known within the project area. Facilities constructed on or within up to 500 feet of an active fault trace could be damaged by fault rupture. Seismic groundshaking and seismically induced liquefaction,

[2] The updated CBC no longer cites the UBC Table 18-1-B for identifying expansive soils. The checklist in Appendix G of the CEQA Guidelines still refers to this out of date table. This PEIR uses the updated CBC section as defined in 24 CCR 1803.5.3 of the CBC (2013).

landslides, or other slope failure could result in structural damage to facilities, which in turn could affect operation of related systems. Regional and centralized BMPs with above-ground infrastructure components that could be seismically impacted include infiltration, bioretention, or detention basins with above ground berms or levees that form the basin. Subsurface infiltration, retention, or storage structures (e.g., trenches, galleries, and wells) and structures generally flush with the surrounding area (e.g., permeable pavement, swales, filter strips, and wetlands) would be less vulnerable to significant seismic damage, but could still be damaged during large earthquakes. Damage to these underground systems include structural damage to the underground vaults, connection to existing MS4, and underdrains that connect to the MS4. Centralized BMPs that consist of large diversion and treatment systems can also experience structural damage under seismic events.

Distributed structural BMPs would be smaller, site- or parcel-specific structures and would therefore be less vulnerable to seismic damage. Although distributed structural BMPs that include above-ground components (e.g., sides or levees to basins, planter boxes, rain barrels, water clarifiers) could be damaged by a seismic event, the resulting release of water would be smaller and less likely to cause significant damage. Damage to these underground systems includes structural damage to the underground vaults, connection to existing MS4, and underdrains that connect to the MS4. For all three structural BMPs, infiltration of water to the underlying soil can result in an increased potential for soil instability and liquefaction.

All of the proposed facilities would be uninhabitable. However, damage to facilities could result in threats to the safety of people in downslope areas or damage to other downslope facilities. To ensure impacts to public safety are minimized, prior to construction of each specific project, a design-level geotechnical investigation would be required. The geotechnical evaluation would identify the potential geologic and seismic hazards and would recommend site-specific design criteria to abate seismic hazards, such as special foundations and structural setbacks, and these recommendations would be incorporated into the design of individual proposed projects.

The geotechnical investigations would be conducted by a geotechnical engineer. Furthermore, project designs would be subject to the CBC design standards and local codes.[3] The California Professional Engineers Act (Building and Professions Code Sections 6700-6799), and the Codes of Professional Conduct, as administered by the California Board of Professional Engineers and Land Surveyors, provide the basis for regulating and enforcing engineering practice in California.

In addition, the County of Los Angeles LID Standards, as well as LID Standards for the various cities, require that all structural BMPs (regional, centralized, and distributed) that include ground-disturbance activities, regardless of size; conduct a site assessment; and identify design considerations. The site assessment specifically includes identifying the potential for fault rupture, seismic shaking, and seismically induced liquefaction and other ground failures. The

[3] A geotechnical engineer specializes in structural behavior of soil and rocks. Geotechnical engineers conduct soil investigations, determine soil and rock characteristics, provide input to structural engineers, and provide recommendations to address problematic conditions or soils.

design considerations must be prepared by a geotechnical engineer and must specifically include design features to minimize or avoid damage from fault rupture and seismic events.

It is likely that the structural elements of each proposed project would be subjected to a moderate to strong earthquake at least once during their operational life which could include surface displacement from fault rupture or seismic shaking. Completion of a comprehensive design-level geotechnical investigation, adherence to the current CBC, LID Standards, and local ordinances and laws regulating construction, and the application of proven seismic design criteria as standard engineering practice would ensure that structures are designed to withstand seismic events without sustaining substantial damage or collapsing. Therefore, this impact is considered less than significant.

Mitigation Measures: None required

Significance Determination: Less than significant

Non-Structural/Institutional BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities that are susceptible to seismic impacts. Consequently, there would be no new facilities that would place people or structures at risk to injury or damage due to fault rupture. Therefore, this impact would have no impact relative to fault rupture.

Mitigation Measures: None required

Significance Determination: No impact

Soil Erosion or Topsoil Loss

Impact 3.5-2: The proposed program could result in substantial soil erosion or the loss of topsoil.

Structural (Regional, Centralized, and Distributed) BMPs

Construction activities for proposed program facilities such as excavation and grading could result in soil erosion or loss of topsoil during rain or high-wind events. Erosion could damage facilities, pose risk to people, or damage habitat or improvements downslope of a proposed program, resulting in potentially significant impacts. However, each BMP type would generally serve to slow down or fully retain stormwater runoff. This would act to reduce erosion potential compared with existing conditions. Discharge points from centralized and distributed BMPs would be designed to minimize scour potential, and in any case improve scour potential from existing conditions.

To prevent erosion and runoff from construction sites, the CGP requires the preparation and implementation of a SWPPP that would include BMPs to control erosion and off-site

sedimentation from construction sites. The required compliance with the SWPPP and implementation of erosion control BMPs would ensure that soil erosion and loss of topsoil would be minimized to levels considered less than significant.

Proposed projects that are smaller than one acre would be required to comply with the BMPs identified in the Los Angeles County MS4 Permit (RWQCB Order No. R4-2010-0175), which would implement minimum-control BMPs to provide erosion control and sediment control strategies for small construction sites (see Chapter 3.8, *Surface Hydrology and Water Quality*, for a more detailed explanation of the MS4 Permit.). Compliance with SWPPPs and runoff BMPs (will vary with the area of disturbance, construction vehicles used, site grade, and duration of project) would ensure less than significant erosion during construction.

Mitigation Measures: None required

Significance Determination: Less than significant

Non-Structural/Institutional BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, there would be no new facilities that would increase erosion or the loss of topsoil due to the construction of new facilities.

Mitigation Measures: None required

Significance Determination: No impact

Soil Stability

Impact 3.5-3: The proposed program could be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the program, and potentially result in on-site or off-site non-seismically induced geologic hazards such as landslides, lateral spreading, subsidence, collapse or sinkholes, settlement, or slope failure.

Structural (Regional, Centralized, and Distributed) BMPs

Non-seismically-induced geologic hazards such as landslides, lateral spreading, settlement, and slope failure can be caused by unstable soils. Infiltration of water into surficial soils can increase soil instability. Distributed structural BMPs would be smaller, site- or parcel-specific structures and would therefore be less vulnerable to geologic hazards. Although distributed structural BMPs that include above ground components (e.g., sides or levees to basins, planter boxes, rain barrels, water clarifiers) could be damaged by geologic hazards, the resulting release of water would be smaller and less likely to cause significant damage. The regional and centralized structural BMPs that include the construction of larger physical structures would be more susceptible to unstable soils.

Furthermore, infiltration could result in saturated soils, soil piping through preferential pathways, breakouts due to infiltrated water finding utility trenches and other preferential pathways, and raising the local groundwater levels such that infrastructure foundations and underground structures could be affected by unstable soils. Increased saturation of shallow soils could reduce the strength of the soils, resulting in an increased susceptibility to failure (e.g., lateral spreading, settlement, instability, soil piping, reduced or loss of shear strength). In addition, infiltrated water could become perched or find preferential pathways such as utility trenches and potentially inundate or destabilize subterranean structures and utilities, or breakout downstream and damage above ground structures. To ensure that structural BMPs are not undermined by unstable soils or impact adjacent infrastructure and buildings, **Mitigation Measure GEO-1** requires that each specific project would require a design-level geotechnical investigation. The geotechnical evaluation would identify the potential for geologic hazards and would recommend site-specific design criteria to abate geologic hazards, such as drainage barriers, lined trenches, continued monitoring of subsurface conditions, added site drainage, special foundations, and structural setbacks, and these recommendations would be incorporated into the design of individual proposed projects.

Implementing the design requirements in the CBC and local (County and city) ordinances and recommendations of geotechnical investigations would ensure that all structures are constructed in compliance with the applicable laws, regulations, and policies, including the LID Ordinances. Therefore, this impact is considered less than significant.

Mitigation Measures:

GEO-1: Prior to approval of infiltration BMPs, implementing agencies shall conduct a geotechnical investigation of each infiltration BMP site to evaluate infiltration suitability. If infiltration rates are sufficient to accommodate an infiltration BMP, the geotechnical investigation shall recommend design measures necessary to prevent excessive lateral spreading that could destabilize neighboring structures. Implementing agencies shall implement these measures in project designs.

Significance Determination: Less than significant (The application of this mitigation measure to specific BMP types and categories is identified in Table 3.5-3.)

Non-Structural/Institutional BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities that would be located on a geologic unit or soil that is unstable. Consequently, there would be no new facilities that would increase erosion or the loss of topsoil due to the construction of new facilities.

Mitigation Measures: None required

Significance Determination: No impact

Expansive Soils

Impact 3.5-4: The proposed program could be located on expansive soil as defined in 24 CCR 1803.5.3 of the California Building Code (2013), creating substantial risks to life or structures.

Structural (Regional, Centralized, and Distributed) BMPs

Soil expansion, also referred to as linear extensibility or shrink-swell, occurs in certain clayey soils that when subjected to repeated wetting and drying, undergo shrinking or swelling. As discussed in Section 3.5.1, *Environmental Setting*, some areas within the project area have expansive soil. Soil expansion can occur in expansive soils that have not been removed or properly conditioned. The differential ground movement that occurs through soil expansion could result in structural damage to facilities over the long term, which in turn could affect operation of related systems. Damage to the facilities could result in threats to the safety of people at or near the facilities.

All structural BMPs, regardless of size (regional, centralized, or distributed) would be susceptible to damage from soil expansion if placed on susceptible soil. Some distributed structural BMPs would be less or not susceptible (e.g., bioswales, planter boxes, flow-through treatment BMPs [debris booms/nets, end-of-pipe nets, floating trash booms]) because soil expansion beneath these BMPs, if any, would not result in significant damage.

Completion of a comprehensive design-level geotechnical investigation, implementing the design requirements in the CBC and local (County and city) ordinances, and ensuring that all structures are constructed in compliance with the applicable laws, regulations, and policies, including the LID Ordinances, would ensure that structural BMPs are constructed in a manner that avoids impacts from expansive soils. Therefore, this impact is considered less than significant.

Mitigation Measures: None required

Significance Determination: Less than significant

Non-Structural/Institutional BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Therefore, this impact would have no impact relative to expansive soils.

Mitigation Measures: None required

Significance Determination: Less than significant

On-Site Wastewater Treatment Systems

Impact 3.5-5: The proposed program could have soils incapable of adequately supporting the use of a septic tank or alternative wastewater treatment systems where sewers are not available for the disposal of wastewater.

Implementation of the proposed program would not include facilities that require the use of septic systems or alternate wastewater disposal systems where sewers are not available for the disposal of wastewater. Therefore, no impact would occur related to soil suitability for septic or alternative wastewater disposal systems.

Mitigation Measures: None required

Significance Determination: No impact

Mineral Resources

Impact 3.5-6: The proposed program could result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state or a locally important mineral resource recovery site delineated on a local General Plan, Specific Plan, or other land use plan.

Structural (Regional, Centralized, and Distributed) BMPs

The EWMP project area includes mineral resource areas in Los Angeles County that contain known or potentially productive petroleum fields, natural gas, construction aggregate, and mineral deposits. If the construction of a specific proposed program occurred within a mineral resources area, the access to or availability of that mineral resource could be restricted or eliminated.

Typical distributed structural BMPs would be constructed within areas that are already urbanized and disturbed, and would therefore not be available for mineral resource activities. Regional or centralized structural BMPs could be constructed in locations that are not already urbanized and are located within a designated MRZ, specifically an MRZ-2, an area with known mineral resources. Siting projects within designated MRZs could be conducted if the BMPs do not impede access to the mineral resources. In any case, siting large and small BMPs would need to comply with local and County General Plan zoning restrictions. Compliance with local General Plans and the County of Los Angeles General Plan would ensure that impacts to mineral resources would be less than significant.

Mitigation Measures: None required

Significance Determination: Less than significant

Non-Structural/Institutional BMPs

As discussed in Chapter 2.0, *Project Description*, Non-structural/institutional BMPs do not include the construction of new facilities. Consequently, there would be no new facilities that would affect mineral resources. Therefore, this impact would have no impact.

Mitigation Measures: None required

Significance Determination: Less than significant

Cumulative Impact Discussion

Structural (Regional, Centralized, and Distributed) BMPs

Although the EWMP area is located within a seismically active region, with a wide range of geologic and soil conditions, these conditions can vary greatly within a short distance, making the cumulative context for potential impacts one that is typically more localized. Consequently, most projects would have minimal potential to impact or be impacted by other projects. Impacts would be largely contained within the footprint of each individual proposed project.

Many of the distributed BMPs, as well as the larger-scale regional and central BMPs, would include infiltration as a primary component. Consequently, many infiltration projects could be implemented within each watershed. This would result in a significant amount of water infiltrated into the subsurface, which would saturate some shallow soils below the infiltration basins and raise groundwater levels. A general rise in groundwater levels due to stormwater retention and infiltration would provide water supply benefits to the region, but could also raise groundwater levels above current levels. A regional increase in the amount of infiltration added to subsoils throughout the urbanized areas where the structural BMPs will be installed may increase the potential for impacts to existing infrastructure and buildings. To ensure that structural BMPs are not undermined by unstable soils or impact adjacent infrastructure and buildings, each specific project would require a design-level geotechnical investigation. The geotechnical evaluation would identify the potential for geologic hazards and would recommend site-specific design criteria to abate geologic hazards, such as drainage barriers, lined trenches, continued monitoring of subsurface conditions, added site drainage, special foundations, and structural setbacks, and these recommendations would be incorporated into the design of individual proposed projects. Implementation of these requirements for a geotechnical investigation, assessment, and design recommendation for structural BMPs that include adding flows by infiltration and filtration to the subsurface should address the potential for cumulative impacts.

All the groundwater basins in Los Angeles County are actively used for multiple beneficial uses; most are designated as drinking water sources. The potential for groundwater levels to rise high enough to impact structural foundations and other support structures is low since the aquifers are generally over 100 feet below ground surface and are actively managed by overlying users. Furthermore, targeted pumping in areas with elevated groundwater levels would mitigate any soil stability issues. However, water levels may rise in local areas with limited extraction capabilities.

In addition, percolating water could become perched or find preferential pathways such as utility trenches and inundate underground utilities or structures. The cumulative effect of multiple infiltration projects could increase the severity of the perched or migrating water. However, Mitigation Measure GEO-1 would require that BMPs be designed to avoid infiltrating in areas with the potential for perched groundwater or migration. This would minimize the cumulative impact to regional infrastructure.

In addition, groundwater managers in each of the watersheds currently manage pumping effectively to prevent impacts to structural foundations resulting from groundwater mounding from existing recharge efforts. Under existing conditions, in areas with chronically high groundwater levels, dewatering operations are installed, and the water is beneficially used wherever possible. Implementation of **Mitigation Measure GEO-2** would require that the Implementing Agency notify groundwater managers of local infiltration projects to provide better coordination between stormwater retention and groundwater levels management. With this coordination, the potential contribution to cumulative effects to soil stability from elevated groundwater levels would be considered less than significant.

Significance Determination before Mitigation: Potentially significant

Mitigation Measures:

GEO-2: Prior to installing BMPs designed to recharge the local groundwater supplies, the Implementing Agency shall notify local groundwater managers, including the Upper Los Angeles River Area Water Master, the Water Replenishment District of Southern California, or the San Gabriel Water Master as well as local water producers such as local municipalities and water companies. The Implementing Agency shall coordinate BMP siting efforts with groundwater managers and producers to mitigate high groundwater levels while increasing local water supplies.

Significance Determination after Mitigation: Less than significant (The application of this mitigation measure to specific BMP types and categories is identified in Table 3.5-3.)

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, there would be no new facilities that would contribute to cumulative impacts.

Mitigation Measures: None required

Significance Determination: Less than significant

3.5.4 Summary of Impact Assessment

Table 3.5-3 shows a summary of the structural BMPs requiring mitigation.

TABLE 3.5-3
SUMMARY OF GEOLOGIC RESOURCE IMPACTS REQUIRING MITIGATION MEASURES

	Thresholds of Significance						
Structural BMPs	**Exposure to Seismic-Related Hazards**	**Soil Erosion or Topsoil Loss**	**Soil Stability**	**Expansive Soils**	**On-Site Wastewater Treatment Systems**	**Mineral Resources**	**Cumulative Impacts**
Applicable Mitigation Measures:	**None Required**	**None Required**	**GEO-1**	**None Required**	**None Required**	**None Required**	**GEO-2**
Regional BMPs							
Regional Detention and Infiltration	No	No	No	No	No	No	Yes
Regional Capture, Detention and Use	No	No	No	No	No	No	Yes
Centralized BMP							
Bioinfiltration	No	No	No	No	No	No	Yes
Constructed Wetlands	No	No	No	No	No	No	Yes
Treatment/Low-Flow Diversions	No	No	No	No	No	No	Yes
Creek, River, Estuary Restoration	No	No	No	No	No	No	Yes
Distributed BMPs							
Site-Scale Detention	No	No	No	No	No	No	Yes
LID – Infiltration/Filtration BMPs – Porous Pavement, Green Streets, Bioswale/Filter Strips, Downspout Disconnects	No	No	No	No	No	No	Yes
LID – Green Infrastructure – Capture and Use – Cisterns, Rain Barrels, Green roofs, Planter Boxes	No	No	No	No	No	No	Yes
Flow through Treatment BMPs	No	No	No	No	No	No	Yes
Source-Control Treatment BMPs (catch basin inserts/screens, hydrodynamic separators, gross solids removal devices)	No	No	No	No	No	No	Yes
Low-Flow Diversions	No	No	No	No	No	No	Yes

NOTE: These conclusions are based on typical BMP size and location.

3.6 Greenhouse Gas Emissions

This section provides a discussion of global climate change, existing regulations pertaining to global climate change, and potential greenhouse gas (GHG) emissions resulting from implementation of the proposed program. Impacts related to GHGs and climate change are analyzed and mitigation measures are provided for any potentially significant impacts. The methods of analyzing emissions described in this section are consistent with the recommendations of the South Coast Air Quality Management District (SCAQMD).

3.6.1 Environmental Setting

Affected Environment

This section presents a discussion of existing climate conditions, the current state of climate change science, and GHG emissions sources in California.

Climate

Climate is the accumulation of daily and seasonal weather events over a long period of time, whereas weather is defined as the condition of the atmosphere at any particular time and place (Ahrens, 2003). The proposed program is located in the County of Los Angeles within the Basin, which has a distinctive climate determined by its terrain and geographic location. The general region lies in the semipermanent high-pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes with light average wind speeds. The usually mild climate is interrupted occasionally by periods of extremely hot weather, winter storms, or Santa Ana winds.

Climate Change Overview

Various gases in the earth's atmosphere, classified as GHGs, play a critical role in determining its surface temperature. Solar radiation enters earth's atmosphere from space, and a portion of the radiation is absorbed by the earth's surface. Earth re-radiates this energy back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. GHGs, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation (that otherwise would have escaped back into space) is now retained in the atmosphere, and results in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth. Without the greenhouse effect, the earth would not be able to support life as we know it.

Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), chlorofluorocarbons (CFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Much of the scientific literature suggests that human-caused emissions of these GHGs in excess of natural ambient concentrations are responsible for intensifying the greenhouse effect and have led to a trend of unnatural warming of earth's climate, known as global climate change or global warming. While there is some debate regarding this issue, it is unlikely that global climate change of the past 50 years can be explained without contribution from human activities (IPCC, 2007).

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one year to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of any particular GHG molecule is dependent on multiple variables and cannot be pinpointed, it is understood that more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration. Of the total annual human-caused CO_2 emissions, approximately 54 percent is sequestered through ocean uptake, uptake by northern hemisphere forest regrowth, and other terrestrial sinks within 1 year, whereas the remaining 46 percent of human-caused CO_2 emissions remains stored in the atmosphere (Seinfeld and Pandis, 1998).

Similarly, impacts of GHGs are borne globally, as opposed to localized air quality effects of criteria air pollutants and toxic air contaminants. The quantity of GHGs that it takes to ultimately result in climate change is not precisely known; however, it is clear that the quantity is enormous, and no single project would measurably contribute to a noticeable incremental change in the global average temperature, or to global, local, or micro climates. From the standpoint of the California Environmental Quality Act (CEQA), GHG impacts to global climate change are inherently cumulative.

Greenhouse Gas Emission Sources

According to much of the scientific literature on this topic, emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the transportation, industrial/manufacturing, utility, residential, commercial, and agricultural sectors. In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation (CARB, 2014a). Emissions of CO_2 are by-products of fossil fuel combustion. CH_4, a highly potent GHG, results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. N_2O is also largely attributable to agricultural practices and soil management. CO_2 sinks, or reservoirs, include vegetation and the ocean, which absorb CO_2 through sequestration and dissolution, respectively, and are two of the most common processes of CO_2 sequestration.

California is the 12th to 16th largest emitter of CO_2 in the world (CEC, 2006a). California produced 452 million gross metric tons of CO_2 equivalent (CO_2e) in 2010 (CARB, 2014a). CO_2e is a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. Expressing emissions in CO_2e takes the contributions to the greenhouse effect of all GHG emissions and converts them to the equivalent effect that would occur if only CO_2 were being emitted. This measurement, known as the global warming potential (GWP) of a GHG, is dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. For example, as described in Appendix C, Calculation References, of the General Reporting Protocol of the California Climate Action Registry (CCAR, 2009), 1 ton of CH_4 has the same contribution to the greenhouse effect as approximately 21 tons of CO_2. Therefore, CH_4 is a much more potent GHG than CO_2.

Combustion of fossil fuel in the transportation sector was the single largest source of California's GHG emissions in 2012, accounting for 36 percent of total GHG emissions in the state (CARB, 2014a). This sector was followed by the electric power sector (including both in-state and out-of-state sources) (21 percent) and the industrial sector (19 percent) (CARB, 2014a).

3.6.2 Regulatory Framework

Federal

The federal Clean Air Act (CAA) requires the U.S. Environmental Protection Agency (USEPA) to define national ambient air quality standards to protect public health and welfare in the United States. The CAA does not specifically regulate GHG emissions; however, on April 2, 2007, the U.S. Supreme Court in *Massachusetts v. U.S. Environmental Protection Agency* determined that GHGs are pollutants that can be regulated under the CAA. Currently, there are no federal regulations that establish ambient air quality standards for GHGs.

On December 7, 2009, USEPA adopted its Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases under the CAA (Endangerment Finding). The Endangerment Finding is based on Section 202(a) of the CAA, which states that the USEPA Administrator should regulate and develop standards for "emission[s] of air pollution from any class or classes of new motor vehicles or new motor vehicle engines, which in [its] judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare." The rule addresses Section 202(a) in two distinct findings. The first addresses whether the concentrations of the six key GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) in the atmosphere threaten the public health and welfare of current and future generations. The second addresses whether the combined emissions of GHGs from new motor vehicles and motor vehicle engines contribute to atmospheric concentrations of GHGs and, therefore, contribute to the threat of climate change.

The USEPA Administrator determined that atmospheric concentrations of GHGs endanger the public health and welfare within the meaning of Section 202(a) of the CAA. The evidence supporting this finding consists of human activity resulting in "high atmospheric levels" of GHG emissions, which are likely responsible for increases in average temperatures and other climatic changes. Furthermore, the observed and projected results of climate change (e.g., higher likelihood of heat waves, wild fires, droughts, sea level rise, and higher intensity storms) are a threat to the public health and welfare. Therefore, GHGs were found to endanger the public health and welfare of current and future generations.

Specific GHG regulations that USEPA has adopted to-date are as follows:

40 CFR Part 98. Mandatory Reporting of Greenhouse Gases Rule. This rule requires mandatory reporting of GHG emissions for facilities that emit more than 25,000 metric tons of CO_2e emissions per year (USEPA, 2011). Additionally, reporting of emissions is required for owners of SF_6- and PFC-insulated equipment when the total nameplate capacity of these insulating gases is above 17,280 pounds.

40 CFR Part 52. Proposed Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule. USEPA recently mandated to apply Prevention of Significant Deterioration (PSD) requirements to facilities whose stationary source CO_2e emissions exceed 75,000 tons per year (USEPA, 2010).

The USEPA also recently released a proposed rule which would regulate GHG emissions from existing power plants across the nation. The proposed rule establishes state-by-state 2030 GHG goals.

State

The California Air Resources Board (CARB) is the agency responsible for coordination and oversight of state and local air pollution control programs in California. Various statewide and local initiatives to reduce the state's contribution to GHG emissions have raised awareness that, even though the various contributors to and consequences of global climate change are not yet fully understood, global climate change is under way, and there is a real potential for severe adverse environmental, social, and economic effects in the long term. Because every nation emits GHGs and therefore makes an incremental cumulative contribution to global climate change, cooperation on a global scale will be required to reduce the rate of GHG emissions to a level that can help to slow or stop the human-caused increase in average global temperatures and associated changes in climatic conditions.

There are currently no state regulations in California that establish ambient air quality standards for GHGs. However, California has passed laws directing CARB to develop actions to reduce GHG emissions, and several state legislative actions related to climate change and GHG emissions have come into play in the past decade.

Assembly Bill 1493 (Pavley)

In 2002, then-Governor Gray Davis signed Assembly Bill (AB) 1493. AB 1493 required that CARB develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of greenhouse gases emitted by passenger vehicles and light-duty trucks and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the state."

To meet the requirements of AB 1493, in 2004 CARB approved amendments to the California Code of Regulations (CCR) adding GHG emissions standards to California's existing standards for motor vehicle emissions. Amendments to CCR Title 13, Sections 1900 and 1961 (13 CCR 1900, 1961), and adoption of Section 1961.1 (13 CCR 1961.1) require automobile manufacturers to meet fleet-average GHG emissions limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes (i.e., any medium-duty vehicle with a gross vehicle weight rating less than 10,000 pounds that is designed primarily for the transportation of persons), beginning with the 2009 model year. For passenger cars and light-duty trucks with a loaded vehicle weight of 3,750 pounds or less, the GHG emission limits for the 2016 model year are approximately 37 percent lower than the limits for the first year of the regulations, the 2009 model year. For light-duty trucks with a loaded vehicle weight of 3,751

pounds to gross vehicle weight of 8,500 pounds, as well as medium-duty passenger vehicles, GHG emissions would be reduced approximately 24 percent between 2009 and 2016.

Executive Order S-03-05

Executive Order S-03-05, which was signed by Governor Arnold Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra's snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total GHG emission targets. Specifically, emissions were to be reduced to the 2000 level by 2010 and are to be reduced to the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

The Executive Order directed the Secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The Secretary will also submit biannual reports to the governor and state legislature describing progress made toward reaching the emission targets, impacts of global warming on California's resources, and mitigation and adaptation plans to combat these impacts. To comply with the Executive Order, the Secretary of CalEPA created the California Climate Action Team (CCAT), which is made up of members from various state agencies and commissions. CCAT released its first report in March 2006. The report proposed to achieve the targets by building on voluntary actions of California businesses, local government, and community actions, as well as through state incentive and regulatory programs.

Assembly Bill 32 (California Global Warming Solutions Act of 2006)

In September 2006, Governor Schwarzenegger signed the California Global Warming Solutions Act (AB 32; California Health and Safety Code Division 25.5, Sections 38500–38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction will be accomplished by enforcing a statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources.

Senate Bill 1368

Senate Bill (SB) 1368 is the companion bill of AB 32 and was signed by Governor Schwarzenegger in September 2006. SB 1368 required the California Public Utilities Commission (CPUC) to establish a GHG emission performance standard for baseload generation from investor-owned utilities. CPUC adopted a GHG Emissions Performance Standard in January 2007. The California Energy Commission (CEC) adopted consistent regulations for implementing and enforcing SB 1368 for the state's publicly owned utilities in August 2007. These standards cannot exceed the GHG emission rate from a baseload combined-cycle natural-gas-fired plant. The legislation further requires that all electricity provided to California, including imported electricity, must be generated from plants that meet the standards set by the CPUC and CEC.

Executive Order S-1-07

Executive Order S-1-07, which was signed by Governor Schwarzenegger in 2007, proclaims that the transportation sector is the main source of GHG emissions in California, generating more than 40 percent of statewide emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in California by at least ten percent by 2020. This order also directed CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

On April 23, 2009, CARB approved the proposed regulation to implement the LCFS. The LCFS will reduce GHG emissions from the transportation sector in California by about 16 million metric tons (MMT) in 2020.

Senate Bill 97

SB 97, signed August 2007 (Chapter 185, Statutes of 2007; Public Resources Code Sections 21083.05 and 21097), acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. The bill directs the California Office of Planning and Research (OPR) to prepare, develop, and transmit to the California Natural Resources Agency, guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, by July 1, 2009. The Natural Resources Agency was required to certify or adopt those guidelines by January 1, 2010. On April 13, 2009, OPR submitted to the Secretary for Natural Resources its proposed amendments to the CEQA Guidelines for GHG emissions, as required by SB 97. On February 16, 2010, the Office of Administrative Law approved the amendments, and filed them with the Secretary of State for inclusion in the CCR. The amendments became effective on March 18, 2010.

CARB Climate Change Scoping Plan

On December 11, 2008, CARB adopted its Scoping Plan, which functions as a roadmap of CARB's plans to achieve GHG reductions in California required by AB 32 through subsequently enacted regulations (CARB, 2008). CARB's Scoping Plan contains the main strategies California will implement to reduce CO_2e emissions by 169 MMT, or approximately 28.4 percent, from the state's projected 2020 emissions level of 596 MMT of CO_2e under a "business-as-usual" (BAU) scenario. In August 2011, the Scoping Plan was reapproved by the Board and includes the Final Supplement to the Scoping Plan Functional Equivalent Document. This document includes expanded analysis of project alternatives as well as updates the 2020 emission projections in light of the current economic forecasts. Considering the updated 2020 BAU estimate of 507 MMT CO_2e, a 16 percent reduction below the estimated BAU levels would be necessary to return to 1990 levels by 2020. The document also excludes one measure identified in the 2008 Scoping Plan that has been adopted and one measure that is no longer under consideration by CARB (CARB, 2011).

CARB's Scoping Plan calculates 2020 BAU emissions as the emissions that would be expected to occur in the absence of any GHG reduction measures. The 2020 BAU emissions estimate was derived by projecting emissions from a past baseline year using growth factors specific to each of the different economic sectors (transportation, electrical power, commercial and residential,

industrial, etc.). CARB used 3-year average emissions, by sector, for 2002–2004 to forecast emissions to 2020. At the time CARB's Scoping Plan process was initiated, 2004 was the most recent year for which actual data was available. The measures described in CARB's Scoping Plan are intended to reduce the projected 2020 BAU levels to 1990 levels, as required by AB 32.

CARB's Scoping Plan also breaks down the amount of GHG emissions reductions CARB recommends for each emissions sector of the state's GHG inventory. CARB's Scoping Plan calls for the largest reductions in GHG emissions to be achieved by implementing the following measures and standards:

- Improved emissions standards for light-duty vehicles (estimated reductions of 31.7 MMT CO_2e)
- The LCFS (15.0 MMT CO_2e)
- Energy efficiency measures in buildings and appliances, and the widespread development of combined heat and power systems (26.3 MMT CO_2e)
- A renewable portfolio standard for electricity production (21.3 MMT CO_2e)

CARB has identified a GHG reduction target of 5 MMT (of the 174 MMT total) local land use changes (Table 2 of CARB's Plan), by implementation of Reduction Strategy T-3 regarding Regional Transportation-Related GHG Targets. Additional land use reductions may be achieved as SB 375 is implemented. CARB's Scoping Plan states that successful implementation of the plan relies on local governments' land use, planning, and urban growth decisions because local governments have primary authority to plan, zone, approve, and permit land development to accommodate population growth and the changing needs of their jurisdictions. CARB further acknowledges that decisions on how land is used will have large effects on the GHG emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emission sectors. CARB's Scoping Plan does not include any direct discussion about GHG emissions generated by construction activity.

Table 3.6-1 shows the Recommended Actions contained in Appendices C and E of CARB's Scoping Plan.

TABLE 3.6-1
RECOMMENDED ACTIONS FROM CARB CLIMATE CHANGE SCOPING PLAN

ID #	Sector	Strategy Name
T-1	Transportation	Pavley I and II – Light-Duty Vehicle GHG Standards
T-2	Transportation	LCFS (Discrete Early Action)
T-3	Transportation	Regional Transportation-Related GHG Targets
T-4	Transportation	Vehicle Efficiency Measures
T-5	Transportation	Ship Electrification at Ports (Discrete Early Action)
T-6	Transportation	Goods-movement Efficiency Measures
T-7	Transportation	Heavy-Duty Vehicle GHG Emission Reduction Measure – Aerodynamic Efficiency (Discrete Early Action)
T-8	Transportation	Medium- and Heavy-Duty Vehicle Hybridization
T-9	Transportation	High-Speed Rail

TABLE 3.6-1 (CONTINUED)
RECOMMENDED ACTIONS FROM CARB CLIMATE CHANGE SCOPING PLAN

ID #	Sector	Strategy Name
E-1	Electricity and Natural Gas	Increased Utility Energy efficiency programs More stringent Building and Appliance Standards
E-2	Electricity and Natural Gas	Increase Combined Heat and Power Use by 30,000GWh
E-3	Electricity and Natural Gas	Renewables Portfolio Standard
E-4	Electricity and Natural Gas	Million Solar Roofs
CR-1	Electricity and Natural Gas	Energy Efficiency
CR-2	Electricity and Natural Gas	Solar Water Heating
GB-1	Green Buildings	Green Buildings
W-1	Water	Water Use Efficiency
W-2	Water	Water Recycling
W-3	Water	Water System Energy Efficiency
W-4	Water	Reuse Urban Runoff
W-5	Water	Increase Renewable Energy Production
W-6	Water	Public Goods Charge (Water)
I-1	Industry	Energy Efficiency and Co-benefits Audits for Large Industrial Sources
I-2	Industry	Oil and Gas Extraction GHG Emission Reduction
I-3	Industry	GHG Leak Reduction from Oil and Gas Transmission
I-4	Industry	Refinery Flare Recovery Process Improvements
I-5	Industry	Removal of CH_4 Exemption from Existing Refinery Regulations
RW-1	Recycling and Waste Management	Landfill CH_4 Control (Discrete Early Action)
RW-2	Recycling and Waste Management	Additional Reductions in Landfill CH_4 – Capture Improvements
RW-3	Recycling and Waste Management	High Recycling/Zero Waste
F-1	Forestry	Sustainable Forest Target
H-1	High GWP Gases	Motor Vehicle Air Conditioning Systems (Discrete Early Action)
H-2	High GWP Gases	SF_6 Limits in Non-Utility and Non-Semiconductor Applications (Discrete Early Action)
H-3	High GWP Gases	Reduction in Perfluorocarbons in Semiconductor Manufacturing (Discrete Early Action)
H-4	High GWP Gases	Limit High GWP Use in Consumer Products (Discrete Early Action, Adopted June 2008)
H-5	High GWP Gases	High GWP Reductions from Mobile Sources
H-6	High GWP Gases	High GWP Reductions from Stationary Sources
H-7[a]	High GWP Gases	Mitigation Fee on High GWP Gases
A-1	Agriculture	CH_4 Capture at Large Dairies

[a] This original measure in the 2008 Scoping Plan was subsequently excluded by CARB in the Final Supplement to the Scoping Plan Functional Equivalent Document in 2011, as CARB staff concluded that implementation of this measure would not be feasible.

SOURCE: CARB, 2008.

As discussed previously, a draft Update to the initial Scoping Plan was developed by CARB in collaboration with the CCAT to address the requirement by AB 32 that the Scoping Plan be updated at least every 5 years. The draft Update to the initial Scoping Plan developed by CARB in collaboration with the CCAT was presented to CARB's Board for discussion at its February 20, 2014 meeting. The draft Update builds upon the initial Scoping Plan with new strategies and expanded measures, and identifies opportunities to leverage existing and new funds to drive GHG

emission reductions through strategic planning and targeted program investments. The first update to the AB 32 Scoping Plan was approved on May 22, 2014, by CARB.

As part of the proposed update to the Scoping Plan, the emissions reductions required to meet the 2020 statewide GHG emissions limit were further adjusted. The primary reason for adjusting the 2020 statewide emissions limit was based on the fact that the original Scoping Plan relied on the Intergovernmental Panel on Climate Change (IPCC) 1996 Second Assessment Report (SAR) to assign the GWPs of greenhouse gases. Recently, in accordance the United Nations Framework Convention on Climate Change (UNFCCC), international climate agencies have agreed to begin using the scientifically updated GWP values in the IPCC's Fourth Assessment Report (AR4) that was released in 2007. Because CARB has begun to transition to the use of the AR4 100-year GWPs in its climate change programs, CARB recalculated the Scoping Plan's 1990 GHG emissions level with the AR4 GWPs (CARB, 2014b).

CEQA Guidelines Revisions

In 2007, the State Legislature passed SB 97, which required amendment of the CEQA Guidelines to incorporate analysis of, and mitigation for, GHG emissions from projects subject to CEQA. The California Natural Resources Agency adopted these amendments on December 30, 2009, and they took effect on March 18, 2010, after review by the Office of Administrative Law and filing with the Secretary of State for inclusion in the CCR.

The Guidelines revisions include a new section (Section 15064.4) that specifically addresses the potential significance of GHG emissions. Section 15064.4 calls for a "good-faith effort" to "describe, calculate or estimate" GHG emissions; Section 15064.4 further states that the analysis of the significance of any GHG impacts should include consideration of the extent to which the project would increase or reduce GHG emissions; exceed a locally applicable threshold of significance; and comply with "regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions." The new Guidelines also state that a project may be found to have a less-than-significant impact on GHG emissions if it complies with an adopted plan that includes specific measures to sufficiently reduce GHG emissions (Section 15064(h)(3)). The Guidelines do not, however, require or recommend a specific analytical methodology or provide quantitative criteria for determining the significance of GHG emissions.

Local

SCAQMD

As an interim method for determining significance under CEQA until statewide significance thresholds are established, SCAQMD developed a draft tiered flowchart in 2008 for determining significance thresholds for GHGs for projects where SCAQMD is acting as the lead agency. The SCAQMD flowchart uses a tiered approach in which a proposed program is deemed to have a less-than-significant impact related to GHG emissions when any of the following conditions are met:

- GHG emissions are within GHG budgets in an approved regional plan.

- Incremental increases in GHG emissions due to the project are below the defined Significance Screening Levels, or mitigated to less than the Significance Screening Levels.
- Performance standards are met by incorporating project design features and/or implementing emission reduction measures.
- Carbon offsets are made to achieve target significance screening level.

County of Los Angeles General Plan

The 1980 County of Los Angeles General Plan does not address GHG emissions and climate change. However, the Conservation and Open Space Element contains policies that would contribute to the reduction of GHG emissions (County of Los Angeles, 1980). These are as follows:

Policy 1: Actively support strict air quality regulations for mobile and stationary sources, and continued research to improve air quality. Promote vanpooling, carpooling and improved public transportation.

Policy 2: Support the conservation of energy and encourage the development and utilization of new energy sources including geothermal, thermal waste, solar, wind and ocean-related sources.

Policy 3: Promote the use of solar energy to the maximum extent possible.

The Air Quality Element of the Draft 2014 County of Los Angeles General Plan summarizes air quality issues and outlines goals and policies that will improve air quality and reduce GHG emissions (County of Los Angeles, 2014a). The policies that are most relevant to GHG emissions include:

Policy AQ 1.2: Encourage the use of low or no volatile organic compound (VOC) emitting materials.

Policy AQ 3.1: Facilitate the implementation and maintenance of the Community Climate Action Plan to ensure that the County reaches its climate change and greenhouse gas emission reduction goals.

Policy AQ 3.2: Reduce energy consumption in County operations by 20 percent by 2015.

Policy AQ 3.3: Reduce water consumption in County operations.

Policy AQ 3.4: Participate in local, regional and state programs to reduce greenhouse gas emissions.

Policy AQ 3.5: Encourage maximum amounts of energy conservation in new development and municipal operations.

Policy AQ 3.6: Support and expand urban forest programs within the unincorporated areas.

County of Los Angeles Community Climate Action Plan

The County of Los Angeles released its Final Draft Community Climate Action Plan (CCAP) in July 2014, which serves to mitigate and avoid GHG emissions associated with community activities in unincorporated Los Angeles County. The CCAP addresses emissions from building energy, land use and transportation, water consumption, and waste generation. The measures and actions outlined in the CCAP ties together the County's existing climate change initiatives and provide a blueprint for a more sustainable future. Ultimately, the CCAP and associated GHG reduction measures will be incorporated into the Air Quality Element of the Los Angeles County General Plan 2035.

Specifically, the CCAP will identify emissions related to community activities, establish a GHG reduction target consistent with AB 32, and provide a roadmap for successfully implementing GHG reduction measures selected by the County. Based on the CCAP's estimated amount of GHG emissions generated by community activities in the County's unincorporated areas in 2010, it was determined that building energy use is the largest source of emissions (49 percent), followed by transportation emissions from on- and off-road vehicles (42 percent) and community waste generation (7 percent). The remaining GHG emissions sources are water conveyance and wastewater generation (2 percent), agriculture (0.4 percent), and stationary sources (0.02 percent). The CCAP comprises a variety of state and local actions to reduce GHG emissions within the unincorporated areas. The state actions considered in the CCAP include: the Renewables Portfolio Standard, Title 24 Standards for Commercial and Residential Buildings (Energy Efficiency and CALGreen), Pavley/Advanced Clean Cars (Vehicle Efficiency), the LCFS, and the California cap-and-trade program. These state actions generally do not require action from the County, but will result in local GHG reductions in the unincorporated areas. To supplement these statewide initiatives, the CCAP has identified 26 local actions to reduce GHG emissions in the unincorporated areas of the County. Specifically, these 26 local actions are grouped into five strategy areas: green building and energy; land use and transportation; water conservation and wastewater; waste reduction, reuse, and recycling; and land conservation and tree planting. Many of the local actions will also be implemented through General Plan policies or other County ordinances. These actions undertaken as part of the CCAP will result in important community co-benefits, including improved air quality, energy savings, and increased mobility, as well as enhancing the resiliency of the community in the face of changing climate conditions. Overall, the goal of the CCAP, which will be a component of the Los Angeles County General Plan, will be to reduce GHG emissions from community activities in the unincorporated areas of Los Angeles County in a manner that is consistent with statewide goals outlined under AB 32 (County of Los Angeles, 2014b). The Final Draft CCAP is anticipated to be adopted with the County's General Plan update.

City General Plans

The numerous cities encompassed by the Enhanced Watershed Management Program (EWMP) area all have their own respective city General Plans, some of which may contain policies that address GHG emissions and climate change. As implementation of the individual structural Best Management Practice (BMP) projects proceed, specific policies and objectives pertaining to GHG

emissions and/or climate change from applicable city General Plans will be identified and evaluated on a project-by-project basis during subsequent CEQA environmental processes.

3.6.3 Impact Assessment

Thresholds of Significance

Based on Appendix G of the CEQA Guidelines, a project would have a significant effect on GHG emissions if it would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
- Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

As noted, the increased concentration of GHGs in the atmosphere has been linked to global warming, which can lead to climate change. Construction of the structural BMPs would incrementally contribute to GHG emissions along with past, present and future activities. As such, impacts of GHG emissions are analyzed here on a cumulative basis.

Currently, LACFCD has not adopted any thresholds for GHG emissions. Additionally, while SCAQMD has issued proposed standards and guidelines, there is no adopted state or local standard for determining the cumulative significance of the proposed program's GHG emissions on global climate change. In December 2008, SCAQMD adopted a 10,000 metric tons of CO_2 equivalents ($MTCO_2e$)/year for industrial facilities, but only with respect to projects where SCAQMD is the lead agency. Additionally, SCAQMD has proposed, but not adopted, a 3,000 MT/year CO_2e threshold for mixed use developments, a 3,500 MT/year CO_2e threshold for residential developments, and a 1,400 MT/year CO_2e threshold for commercial developments. As an alternative to the aforementioned proposed thresholds for residential, commercial, and mixed-use developments, SCAQMD has also recommended the use of a single numerical threshold of 3,000 $MTCO_2e$/year for all non-industrial projects. These draft threshold options are being evaluated through the GHG Thresholds Working Group and have not been adopted as of this writing (SCAQMD, 2010).

For the purposes of this analysis, because the BMPs (structural and non-structural) associated with the proposed program are not residential, commercial, mixed-use, or industrial projects, the most appropriate threshold that would apply to the proposed program would be, although not formally adopted, the 3,000 $MTCO_2e$/year criteria recommended by SCAQMD.

Program Impact Discussion

Program-Generated GHG Emissions

Impact 3.6-1: The proposed program could generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

Structural (Regional, Centralized, and Distributed) BMPs

The proposed program would primarily generate GHG emissions during construction of the proposed structural BMP projects in the EWMP areas. The amount of program-related construction that would occur on an annual basis cannot be determined with any certainty at this time. As such, it is expected that the construction activities for the structural BMPs in the EWMP areas would occur intermittently throughout the course of the program implementation period. Construction-related GHG emissions associated with each structural BMP development would be short-term in nature and limited to the period of time when construction activity is taking place for that particular development. Applying the same approach that was used for the program's air quality analysis in Section 3.2, *Air Quality*, of this PEIR, the maximum annual construction-related GHG emissions for the three structural BMP project types were estimated using the California Emissions Estimator Model (CalEEMod) based on general information provided for the structural BMP projects and CalEEMod default settings along with reasonable assumptions based on other similar types of projects (refer to Tables 3.2-4, 3.2-5, and 3.2-6 in Section 3.2, *Air Quality*, of this PEIR, for the modeling parameters used in CalEEMod for the representative distributed, centralized, and regional structural BMPs, respectively). **Tables 3.6-2**, **3.6-3** and **3.6-4** summarize the modeled worst-case annual GHG emissions that are estimated to occur for a representative distributed, centralized, and regional structural BMP project, respectively.

TABLE 3.6-2
ESTIMATED CONSTRUCTION-RELATED GREENHOUSE GAS EMISSIONS – PROPOSED DISTRIBUTED BMP PROJECT

Emission Source	Proposed Program Emissions CO_2e (MT/yr)
Construction Total	53.52
Construction (Amortized over 30 years)	1.78

NOTES: CO_2e= carbon dioxide equivalent; MT/yr = metric tons per year; see Appendix C for CalEEMod model outputs.

SOURCE: Modeling performed by ESA, 2013.

TABLE 3.6-3
ESTIMATED CONSTRUCTION-RELATED GREENHOUSE GAS EMISSIONS – PROPOSED CENTRALIZED BMP PROJECT

Emission Source	Proposed Program Emissions CO_2e (MT/yr)
Construction Total	335.33
Construction (Amortized over 30 years)	11.18

CO_2e= carbon dioxide equivalent;
MT/yr = metric tons per year;
see Appendix C for CalEEMod model outputs.

SOURCE: Modeling performed by ESA, 2013.

TABLE 3.6-4
ESTIMATED CONSTRUCTION-RELATED GREENHOUSE GAS EMISSIONS – PROPOSED REGIONAL BMP PROJECT

Emission Source	Proposed Program Emissions CO_2e (MT/yr)
Construction Total	2,227.89
Construction (Amortized over 30 years)	74.26

NOTES: CO_2e= carbon dioxide equivalent; MT/yr = metric tons per year; see Appendix C for CalEEMod model outputs.

SOURCE: Modeling performed by ESA, 2013.

As shown in Tables 3.6-2, 3.6-3, and 3.6-4, the total construction-related GHG emissions resulting from representative distributed, centralized, and regional structural BMP projects would be 53.52 $MTCO_2e$/year, 335.33 $MTCO_2e$/year, and 2,227.89 $MTCO_2e$/year, respectively. For construction GHG emissions, SCAQMD recommends that the total construction emissions for a project be amortized over 30 years and added to its operational emission estimates (SCAQMD, 2008). Based on the emissions presented in the tables above, when the highest annual GHG emissions for a representative regional structural BMP project (2,227.89 $MTCO_2e$/year) is amortized over 30 years, the resulting annual emissions would be 74.26 $MTCO_2$/year. Because this annual emissions amount only represents approximately 2.5 percent of the SCAQMD's recommended threshold of 3,000 $MTCO_2e$/year for non-industrial projects, the construction-related GHG emissions generated would be relatively minimal.

Additionally, although the number of pumps that may be installed for some of the centralized and regional structural BMPs is unknown at this juncture, it is not anticipated that the annual GHG emissions contribution from the operation of these pumps would, when added to the annual construction-related emissions at these applicable structural BMP sites, result in total GHG emissions that exceed 3,000 $MTCO_2e$/year at an individual BMP site. Furthermore, because the structural BMPs introduced into the EWMP areas under the program are not land use projects that would generate vehicle trips, GHG emissions would not be generated by motor vehicles traveling to and from the various structural BMP sites on a daily basis. As it is anticipated that only periodic worker trips to the structural BMP sites throughout the year would be required for inspection and maintenance activities, and the mobile GHG emissions generated by these worker trips would be negligible. Thus, because the total GHG emissions generated by the largest structural BMP projects (i.e., regional structural BMPs) under a worst-case scenario would not exceed the 3,000 $MTCO_2e$/year benchmark, impacts associated with GHG emissions generated by the structural BMPs in the EWMP areas under the proposed program would be less than significant.

Mitigation Measures: None required

Significance Determination: Less than significant

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, there would be no impacts related to program-generated GHG emissions.

Mitigation Measures: None required

Significance Determination: No impact

Consistency with GHG Emissions Reduction Plans or Policies

Impact 3.6-2: The proposed program could conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

As discussed in the impact analysis, the GHG emissions generated by each of the structural BMPs associated with the proposed program would not exceed the SCAQMD's recommended threshold of 3,000 $MTCO_2e$ /year for non-industrial projects. The primary source of GHG emissions generated by the majority of the structural BMPs would occur only during construction, which would be temporary in nature. Additionally, as the structural BMPs are not land use projects, GHG emissions associated with mobile sources would only occur from periodic vehicle trips by workers to the structural BMP sites for inspection and maintenance purposes, which would not generate substantial emissions. The annual GHG emissions associated with the operation of pumps at some of the centralized and regional structural BMP sites would also be minimal relative to the GHG emissions generated during construction of these structural BMPs. Consequently, the implementation of these structural BMPs in the EWMP areas under the program would not generate substantial amounts of GHG emissions that would hinder the State's ability to achieve AB 32's goal of achieving 1990 levels of GHG emissions by 2020.

Consistency with CARB Scoping Plan

Out of the Recommended Actions contained in CARB's Scoping Plan (see Table 3.6-1), the actions that are most applicable to the proposed program would be Action W-4 (Reuse Urban Runoff), which aims to reduce urban runoff by capturing and treating the runoff. The program's BMPs would be implemented for this purpose, reducing and treating urban runoff throughout the County of Los Angeles to comply with the MS4 Permit. Implementation of the structural BMPs in the EWMP areas would serve as GHG emission reduction measures that are consistent with this recommended action from the Scoping Plan. Therefore, the program would not conflict with the CARB scoping plan, and this impact would be less than significant.

Consistency with County of Los Angeles Community Climate Action Plan

As discussed previously, the County released its Final Draft CCAP in July 2014 that serves to mitigate and avoid GHG emissions associated with community activities in unincorporated Los Angeles County. The CCAP establishes a GHG reduction target that is consistent with AB 32. As part of the CCAP, 26 local actions have been identified to reduce GHG emissions in the unincorporated areas of the County. In particular, Measure WAW-2 (Recycled Water Use, Water

Supply Improvement Programs, and Stormwater Runoff) from the CCAP specifically aims to promote recycled water use and policies to better manage stormwater to protect local groundwater supplies. A part of the goal for this measure is to manage stormwater and protect local groundwater supplies. A specific implementation step associated with this measure identified in the CCAP is to expand the Low Impact Development (LID) stormwater catchment to more facilities where feasible in the County. Thus, the structural BMPs that would be implemented as part of the proposed program would be consistent with this GHG reduction measure of the CCAP. Therefore, the program would not conflict with the County's CCAP, and this impact would be less than significant.

Mitigation Measures: None required

Significance Determination: Less than significant

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, there would be no conflicts with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

Mitigation Measures: None required

Significance Determination: No impact

Cumulative Impact Discussion

As discussed previously, CEQA considers a project's impacts related to GHG emissions inherently cumulative. Therefore, the discussion presented above comprises the cumulative impact analysis related to global warming and climate change. As concluded, because the GHG emissions generated by the individual structural BMP projects in the EWMP areas would not exceed SCAQMD's recommended threshold of 3,000 MT CO_2e /year for non-industrial projects, the BMPs implemented under the proposed program would not result in substantial GHG emissions into the environment. Additionally, because the proposed BMPs under the program would serve to capture, treat, and manage stormwater runoff in the EWMP areas, the program would also be consistent with the applicable actions and measures of the CARB's Scoping Plan and County's CCAP, respectively. Overall, the proposed program would result in less than significant GHG and climate change cumulative impacts.

Mitigation Measures: None required

Significance Determination: Less than significant

3.6.3 Summary of Impact Assessment

Table 3.6-5 shows a summary of the structural BMPs requiring mitigation.

TABLE 3.6-5
SUMMARY OF GREENHOUSE GAS IMPACTS REQUIRING MITIGATION MEASURES

	Thresholds of Significance		
Structural BMPs	**GHG Emissions**	**Consistency with Plans**	**Cumulative Impacts**
Applicable Mitigation Measures:	**None Required**	**None Required**	**None Required**
Regional BMPs			
Regional Detention and Infiltration	No	No	No
Regional Capture, Detention and Use	No	No	No
Centralized BMP			
Bioinfiltration	No	No	No
Constructed Wetlands	No	No	No
Treatment/Low Flow Diversions	No	No	No
Creek, River, Estuary Restoration	No	No	No
Distributed BMPs			
Site Scale Detention	No	No	No
LID – Infiltration/Filtration BMPs – Porous Pavement, Green Streets, Bioswale/Filter Strips, downspout disconnects	No	No	No
LID – Green Infrastructure – Capture and Use – Cisterns, Rain Barrels, Green roofs, Planter Boxes	No	No	No
Flow through Treatment BMPs	No	No	No
Source Control Treatment BMPs (catch basin inserts/screens, hydrodynamic separators, gross solids removal devices)	No	No	No
Low Flow Diversions	No	No	No

NOTE: These conclusions are based on typical BMP size and location

3.7 Hazards and Hazardous Materials

Potential hazards addressed in this section include uses of hazardous materials during the construction and operation of the proposed program, hazardous materials in soil and groundwater from existing contaminated sites, and hazards related to schools, airports, emergency preparedness, and wildfires. Mitigation measures to reduce impacts to a less-than-significant level are identified, as needed.

3.7.1 Environmental Setting

Hazardous Materials and Hazardous Waste

A hazardous material is defined as any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment (Health and Safety Code §25501(o)). The term "hazardous materials" refers to both hazardous substances and hazardous wastes. Under federal and state laws, any material, including wastes, may be considered hazardous if it is specifically listed by statute as such or if it is toxic (causes adverse human health effects), ignitable (has the ability to burn), corrosive (causes severe burns or damage to materials), or reactive (causes explosions or generates toxic gases).

Hazardous wastes are hazardous substances that no longer have practical use, such as materials that have been spent, discarded, discharged, spilled, contaminated, or are being stored until they can be disposed of properly (22 California Code of Regulations [CCR] Section 66261.10). Soil that is excavated from a site containing hazardous materials is a hazardous waste if it exceeds specific 22 CCR criteria. While hazardous substances are regulated by multiple agencies, as described in the Regulatory Framework below, cleanup requirements of hazardous wastes are determined on a case-by-case basis according to the agency with lead jurisdiction over the project.

Preschools, schools, daycare centers, nursing homes, and hospitals are considered sensitive receptors for hazardous material issues because children and the elderly are more susceptible than adults to the effects of many hazardous materials. There are numerous sensitive receptors located throughout the proposed EWMPs or "program" service area.

Urban Runoff

Within the EWMP area, much of the environment has been developed, resulting in large areas of impervious surfaces that include rooftops, highways and roads, and other hardscapes. Stormwater and urban runoff from these impervious surfaces tends to pick up trash, sediment, and other pollutants including (US EPA, 2003):

- Sediment
- Fuels, oil, grease, and chemicals from motor vehicles and mechanized equipment
- Fertilizers, pesticides and herbicides from landscaping and gardens

- Viruses, bacteria, and nutrients from pet waste and failing septic systems
- Road salts
- Heavy metals from roof shingles, motor vehicles, and other sources

Impacted stormwater and urban runoff that is then directed to a structural Best Management Practices (BMPs) to retain and filter or infiltrate the runoff may accumulate concentrations of chemicals in the upper soils and/or filter media such as petroleum hydrocarbons (fuels, oils, and greases), metals (copper, lead and zinc), polycyclic aromatic hydrocarbons (created as combustion byproducts of gasoline and other fossil fuels), bacteria, nutrients (nitrogen, phosphorus, nitrate, and organic nitrogen), and pesticides.

Hazardous Material Sites

Hazardous materials are currently stored and used at numerous facilities and locations within the EWMP area for a variety of purposes. Some facilities within the area that use or store hazardous materials or hazardous wastes may have experienced unauthorized releases into soil or groundwater, and these releases may or may not have been reported to the appropriate agency or agencies.

In California, regulatory databases listing hazardous materials sites provided by numerous federal, state, and local agencies are consolidated in the "Cortese List" pursuant to Government Code Section 65962.5. The Cortese List is located on the website of the California Environmental Protection Agency (Cal EPA; http://www.calepa.ca.gov/sitecleanup/corteselist/) and is a compilation of the following lists:

- List of Hazardous Waste and Substances sites from Department of Toxic Substances Control (DTSC) EnviroStor database
- List of Leaking Underground Storage Tank Sites by County and Fiscal Year from the State Water Resources Control Board (SWRCB) GeoTracker database
- List of solid waste disposal sites identified by SWRCB with waste constituents above hazardous waste levels outside the waste management unit
- List of "active" Cease and Desist Orders and Cleanup and Abatement Orders from the SWRCB[1]
- List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code, identified by DTSC and listed on their EnviroStor database

The five databases cited above identify sites with suspected and confirmed releases of hazardous materials to the subsurface soil and/or groundwater. The SWRCB GeoTracker database includes

[1] This list contains many Cease and Desist Orders and Cleanup and Abatement Orders that do NOT concern the discharge of wastes that are hazardous materials. Many of the listed orders concern, for example, discharges of domestic sewage, food processing wastes, or sediment that do not contain hazardous materials, but the Water Boards' database does not distinguish between these types of orders. See more at: http://www.calepa.ca.gov/sitecleanup/corteselist/default.htm#sthash.oSjMvSw7.dpuf

leaking underground storage tanks (LUSTs), permitted underground storage tanks (USTs), and Spills, Leaks, Investigations, and Cleanup Database (SLIC) sites. The DTSC EnviroStor database includes federal and state response sites; voluntary, school, and military cleanups and corrective actions; and permitted sites. The reporting and statuses of these sites change as identification, monitoring, and cleanup of hazardous materials sites progress. Typically, a listed site is considered to no longer be of concern once it has been demonstrated that existing site uses combined with the levels of identified contamination present no significant risk to human health or the environment.

The Los Angeles County Fire Department (LACFD) is the designated Los Angeles County Certified Unified Program Agency (LAC CUPA), described further in the Regulatory Framework. The LAC CUPA is responsible for the regulatory oversight of aboveground storage tanks (ASTs) and USTs, county hazardous materials and waste programs, and the California Accidental Release Prevention (CalARP) Program. The LAC CUPA would be the primary source of information regarding hazardous materials use and hazardous waste disposal for facilities that are at or near proposed program within the EWMP area.

The DTSC delegated corrective action oversight authority to LAC CUPA under Chapter 6.5 of Division 20 of California Health and Safety Code to implement corrective action under consent agreement at LAC CUPA facilities within its jurisdiction.

Schools

Schools are considered sensitive receptors for hazardous materials because children are more susceptible than adults to the effects of hazardous materials. There are over a thousand public and private schools, colleges, and universities within Los Angeles County. The proximity of a proposed project to day care centers would also need to be considered.

Airports

Aviation safety hazards can result if projects are sited on or in the vicinity of airports. Specifically, the land use compatibility plans at airports have land use restrictions, such as height, distracting light or glare, and attractants to wildlife, such as birds. The Federal Aviation Administration (FAA) Advisory Circular No: 150/5200-33B provides guidance on development projects affecting aircraft movement near hazardous wildlife attractants (FAA, 2007). The following list indicates the minimum separation criteria for specific aircraft types:

- Airports Serving Piston-Powered Aircraft: Airports that do not sell Jet-A fuel normally serve piston-powered aircraft (propeller-powered). General aviation airports typically serve piston-powered aircraft. However, there are exceptions. For example, the Santa Monica Airport is a general aviation airport but does serve turbine-powered aircraft. The FAA recommends a separation distance of 5,000 feet at these airports for hazardous wildlife attractants. This distance is to be maintained between an airport's air operations area (AOA) and the hazardous wildlife attractant.
- Airports Serving Turbine-Powered Aircraft: Airports selling Jet-A fuel normally serve turbine-powered aircraft (jet- or turbo-prop-powered). The FAA recommends a

separation distance of 10,000 feet at these airports for hazardous wildlife attractants. This distance is to be maintained between an airport's AOA and the hazardous wildlife attractant.

- Protection of Approach, Departure, and Circling Airspace: For all airports, the FAA recommends a distance of 5 statute miles between the farthest edges of the airport's AOA and the hazardous wildlife attractant if the attractant could cause hazardous wildlife movement into or across the approach or departure airspace.

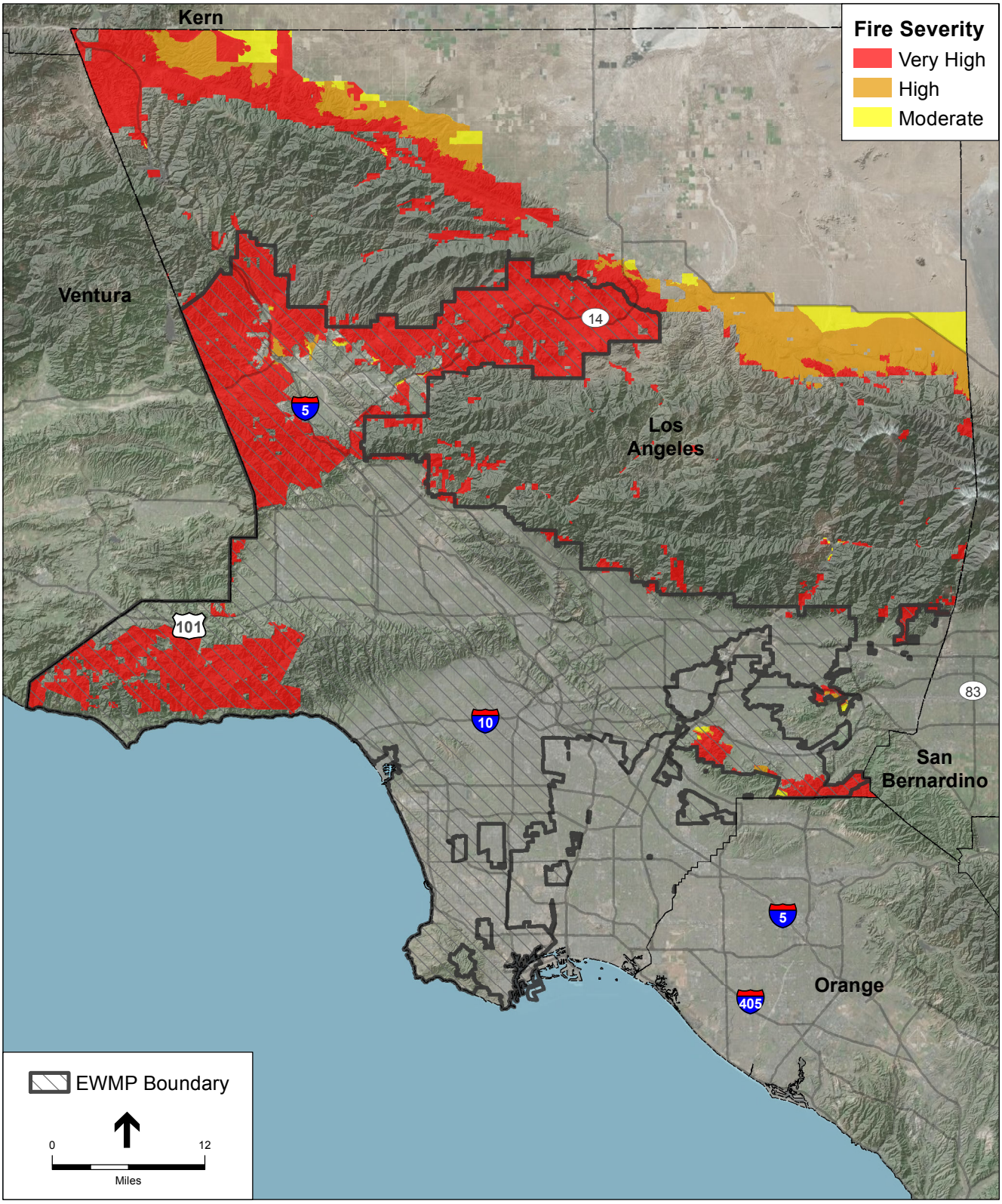
Specific information of the types of aircraft using a particular airport, airport land use compatibility plans, and land use maps for airports within Los Angeles County is available at the Los Angeles County Airport Land Use Commission website at http://planning.lacounty.gov/aluc/airports.

Emergency Preparedness

Los Angeles County Office of Emergency Management (LAC OEM) is the designated lead agency for emergency response and coordinates the development, maintenance, and implementation of the Los Angeles County Operational Area Emergency Response Plan (http://lacoa.org/oaerp.htm). This Plan serves as a guide for the County's response to emergencies/disasters in the County.

Wildfires

Both the State of California and the County of Los Angeles Fire Department map the Fire Hazard Severity Zones (FHSZs) within Los Angeles County. The FHSZs are based on an evaluation of fire history, existing and potential fuel, flame length, blowing embers, terrain, weather, and the likelihood of buildings igniting (California Department of Forestry and Fire Protection, 2012). **Figure 3.7-1** presents the countywide FHSZ map for the state responsibility areas. **Figure 3.7-2** presents the countywide FHSZ map for the county responsibility areas. The very high FHSZ areas tend to be outside of the urban developed areas in areas with flammable vegetation, such as brush.

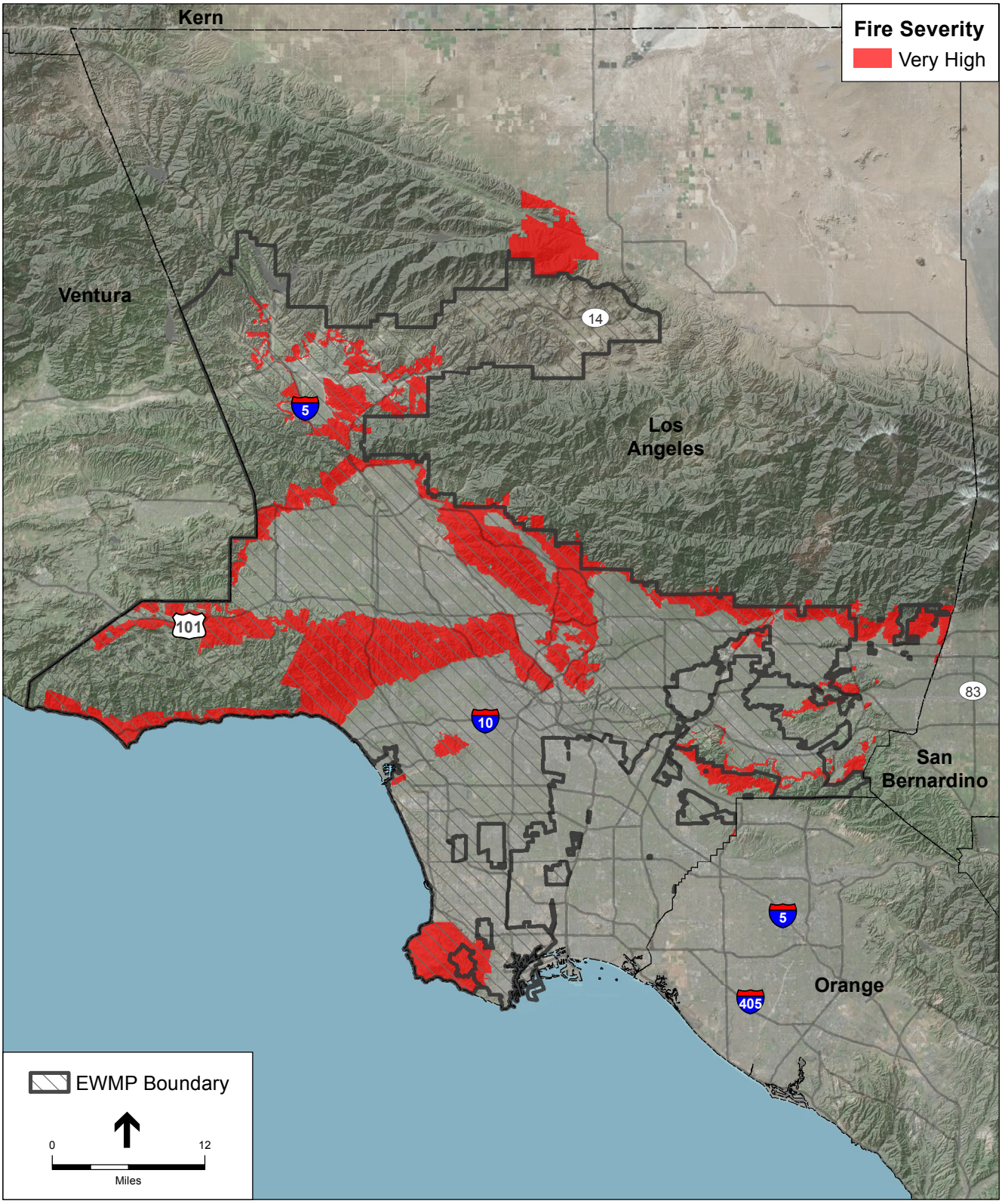


SOURCE: ESRI, Cal Fire 2007

LA County PEIR EWMP . 140474

Figure 3.7-1

Los Angeles County Fire Hazard Severity Zone Map for State Responsibility Areas



SOURCE: ESRI, Cal Fire 2007

LA County PEIR EWMP . 140474

Figure 3.7-2
Los Angeles County Fire Hazard Severity Zone Map for County Responsibility Areas

3.7.2 Regulatory Framework

Hazards and hazardous materials are subject to numerous federal, state, and local laws and regulations intended to protect health, safety, and the environment. The U.S. Environmental Protection Agency (USEPA), the California DTSC, RWQCB, and the County of Los Angeles are the primary agencies enforcing these regulations. Local regulatory agencies enforce many federal and state regulations through the CUPA program. In 1997, LACFD Health Hazardous Materials Division became the LAC CUPA for the Hazardous Waste Generator Program, the Hazardous Materials Release Response Plans and Inventory Program, the CalARP Program, and the Aboveground Storage Tank Program and the Underground Storage Tank Program in Los Angeles County.

Federal

Primary federal agencies with responsibility for hazardous materials management include the USEPA, Department of Labor (Federal Occupational Health and Safety Administration [OSHA]), and Department of Transportation (DOT). Major federal laws and issue areas include the following statutes (and regulations promulgated there under):

- Resources Conservation and Recovery Act (RCRA) 42 USC 6901 et seq. – RCRA is the principal law governing the management and disposal of hazardous materials. RCRA is considered a "cradle to grave" statute for hazardous wastes in that it addresses all aspects of hazardous materials from creation to disposal. Federal regulations for USTs derive from RCRA. RCRA applies to this program because RCRA is used to define hazardous materials.
- Emergency Planning and Community Right-to-Know Act (EPCRA from SARA Title III) – EPCRA improved community access to information regarding chemical hazards and facilitated the development of business chemical inventories and emergency response plans. EPCRA also established reporting obligations for facilities that store or manage specified chemicals. EPCRA applies to this program because the contractors that construct the structural BMPs will be required to prepare and implement written emergency response plans to properly manage hazardous materials during construction and respond to accidental spills.
- DOT Hazardous Materials Transportation Act (49 USC 5101) – DOT, in conjunction with the USEPA, is responsible for enforcement and implementation of federal laws and regulations pertaining to safe storage and transportation of hazardous materials. The Code of Federal Regulations (CFR) 49, 171–180, regulates the transportation of hazardous materials, types of material defined as hazardous, and the marking of vehicles transporting hazardous materials. This Act applies to this program because contractors will be required to comply with its storage and transportation requirements that would reduce the possibility of spills.
- The Federal Motor Carrier Safety Administration (49 CFR Part 382) – The Federal Motor Carrier Safety Administration, a part of the DOT, issues regulations concerning highway routing of hazardous materials, the hazardous materials endorsement for a commercial

driver's license, highway hazardous material safety permits, and financial responsibility requirements for motor carriers of hazardous materials. This Act applies to this program because contractors will be required to comply with its storage and transportation requirements that would reduce the possibility of spills.

- Occupational Safety and Health Administration (OSHA; 29 USC 15) – OSHA is the federal agency responsible for ensuring worker safety. These regulations provide standards for safe workplaces and work practices, including those relating to hazardous materials handling. OSHA applies to this program because contractors will be required to comply with its hazardous materials management and handling requirements that would reduce the possibility of spills.
- The FAA Advisory Circular No: 150/5200-33B – The FAA Advisory Circular provides guidance on development projects affecting aircraft movement near hazardous wildlife attractants (FAA, 2007). This Circular applies to this program because BMPs will be required to comply with its restrictions if at or near airports.

State

The primary State agencies with jurisdiction over hazardous chemical materials management are the DTSC and the RWQCB. Other State agencies involved in hazardous materials management are the Department of Industrial Relations (State OSHA implementation), State Office of Emergency Services (OES)—CalARP implementation, California Air Resources Board (CARB), California Department of Transportation (Caltrans), State Office of Environmental Health Hazard Assessment (OEHHA—Proposition 65 implementation) and California Integrated Waste Management Board (CIWMB). Hazardous materials management laws in California include the following statutes and regulations promulgated there under.

- Hazardous Waste Control Act (HWCA; California Health and Safety Code, Section 25100 et seq.) – The HWCA is the state equivalent of RCRA and regulates the generation, treatment, storage, and disposal of hazardous waste. This act implements the RCRA "cradle-to-grave" waste management system in California but is more stringent in its regulation of non-RCRA wastes, spent lubricating oil, small-quantity generators, transportation and permitting requirements, as well as in its penalties for violations. HWCA applies to this program because contractors will be required to comply with its hazardous waste requirements that would reduce the possibility of spills.
- California Hazardous Materials Release Response Plans and Inventory Law of 1985 (Business Plan Act) – The Business Plan Act requires preparation of hazardous materials business plans and disclosure of hazardous materials inventories, including an inventory of hazardous materials handled, plans showing where hazardous materials are stored, an emergency response plan, and provisions for employee training in safety and emergency response procedures (California Health and Safety Code, Division 20, Chapter 6.95, Article 1). Statewide, DTSC has primary regulatory responsibility for management of hazardous materials, with delegation of authority to local jurisdictions that enter into agreements with the state. Local agencies are responsible for administering these regulations.

Several state agencies regulate the transportation and use of hazardous materials to minimize potential risks to public health and safety, including CalEPA and the California Emergency Management Agency. The California Highway Patrol and Caltrans enforce regulations specifically related to the transport of hazardous materials. Together, these agencies determine container types used and license hazardous waste haulers for hazardous waste transportation on public roadways.

The Business Plan Act applies to this program because contractors will be required to comply with its handling, storage, and transportation requirements that would reduce the possibility of spills, and to prepare an emergency response plan to respond to accidental spills.

- California Division of Occupational Safety and Health (Cal/OSHA) – Cal/OSHA is responsible for developing and enforcing workplace safety standards and assuring worker safety in the handling and use of hazardous materials. Among other requirements, Cal/OSHA requires many entities to prepare injury and illness prevention plans and chemical hygiene plans, and provides specific regulations to limit exposure of construction workers to lead. OSHA applies to this program because contractors will be required to comply with its handling and use requirements that would reduce the possibility of spills, and to prepare an emergency response plan to respond to accidental spills.
- California Vehicle Code Section 38366 – The California Vehicle Code, Section 38366, requires spark-arresting equipment on vehicles that travel off-road. This code applies to the program because the vehicles that construct structural BMPs in off-road areas will be required to have spark-arresting equipment to reduce the risk of wildfires.

Local

Certified Unified Program Agency

In 1993, Senate Bill (SB) 1082 was passed by the State Legislature to streamline the permitting process for those businesses that use, store, or manufacture hazardous materials. The passage of SB 1082 provided for the designation of a CUPA that would be responsible for the permitting process and collection of fees. The CUPA would be responsible for implementing at the local level the Unified Program, which serves to consolidate, coordinate, and make consistent the administrative requirements, permits, inspections, and enforcement activities for the following environmental and emergency management programs:

- Hazardous Materials Release Response Plans and Inventories (Business Plans)
- California Accidental Release Prevention (CalARP) Program
- Underground Storage Tank Program
- Aboveground Petroleum Storage Act Requirements for Spill Prevention, Control and Countermeasure (SPCC) Plans
- Hazardous Waste Generator and On-Site Hazardous Waste Treatment (tiered permitting) Programs

- California Uniform Fire Code: Hazardous Material Management Plans and Hazardous Material Inventory Statements

The CUPA in Los Angeles County is the LACoFD. As such, the Department is given the primary regulatory responsibility for implementing and managing the above-listed programs.

Los Angeles County Operational Area Emergency Response Plan

In 1998, the County of Los Angeles adopted the Los Angeles County Operational Area Emergency Response Plan, which provides emergency planning for the Los Angeles County Operational Area, an area that includes the project area. The purpose of this plan is to increase cooperation and coordination between relevant government agencies and jurisdictions in order to increase efficiency and minimize losses in the event of an emergency or disaster within the Operational Area (County of Los Angeles 1998).

Los Angeles County Fire Department Wildfire Action Plan

In 2009, the LACFD adopted a Wildfire Action Plan, which contains guidelines that recommend fire prevention measures such as creating defensible space and completing fire-resistive retrofits in homes (LACFD 2009). In addition, this plan provides residents with information regarding emergency preparedness and planning in the event of a wildfire.

Los Angeles County General Plan

A General Plan is a basic planning document that, alongside the zoning code, governs development in a city or county. The State requires each city and county to adopt a General Plan with seven mandatory elements: land use, open space, circulation, housing, noise, conservation, and safety, along with any number of optional elements as appropriate. The proposed EWMPs would be subject to local plans and policies of the areas in which they are located.

The County of Los Angeles is currently updating their General Plan from the element versions adopted in the 1980s and 1990s; the new comprehensive plan is expected to be complete by late 2014. Below are the relevant goals and policies from both the existing General Plan (County of Los Angeles, 1980, 1990) and the Draft General Plan 2035 (County of Los Angeles, 2014a) which relate to the EWMP.

Existing General Plan – Safety Element, Adopted 1990

Goal: Reduce threats to public safety and protect property from wildland and urban fire hazards.

Policy 16: Continue to coordinate firefighting efforts with State, Federal and local agencies in fire hazard areas; and review and update mutual and automatic aid agreements between the County and other fire protection agencies.

Policy 19: Promote improved watershed management practices to reduce the risk of damaging runoff and debris movement into urban areas.

Goal: Reduce threats to public safety and protect property from hazardous materials.

Policy 20: Review proposed development projects involving the use or storage of hazardous materials, and disapprove proposals which cannot properly mitigate unacceptable threats to public health and safety to the satisfaction of responsible agencies.

Policy 21: Promote the safe transportation of hazardous materials.

Policy 22: Encourage businesses and organizations which store and us hazardous materials to improve management and transportation of such materials.

Policy 24: Encourage improved, timely communication between businesses and emergency response agencies regarding hazardous materials/waste incidents.

Draft General Plan, 2014 – Conservation and Natural Resources Element

Goal – C/NR-5: Protected and useable local surface water resources.

Policy C/NR 5.6: Minimize point and non-point source water pollution.

Goal – C/NR-6: Protected and usable local groundwater resources.

Policy C/NR 6.5: Prevent stormwater infiltration where inappropriate and unsafe, such as in areas with high seasonal groundwater, on hazardous slopes, within 100 feet of drinking water wells, and in contaminated soils.

County of Los Angeles Low Impact Development Manual

The County of Los Angeles (County) prepared the 2014 Low Impact Development Standards Manual (LID Standards) to comply with the requirements of the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit for stormwater and non-stormwater discharges from the MS4 within the coastal watersheds of Los Angeles County (CAS004001, Order No. R4-2012-0175), referred to as the 2012 MS4 Permit (County of Los Angeles, 2014b). The LID Standards provide guidance for the implementation of stormwater quality control measures in new development and redevelopment projects in unincorporated areas of the County with the intention of improving water quality and mitigating potential water quality impacts from stormwater and non-stormwater discharges.

The November 2013 LID Ordinance became effective December 5, 2013, and requires that all Designated, Non-Designated, street and road construction, and single family hillside home projects comply with Los Angeles County Code Title 12, Chapter 84. The LID Standards were prepared to complement and be consistent with the November 2013 LID Ordinance requirements.

The LID Standards address the following objectives and goals:

- Lessen the adverse impacts of stormwater runoff from development and urban runoff on natural drainage systems, receiving waters, and other water bodies;

- Minimize pollutant loadings from impervious surfaces by requiring development projects to incorporate properly-designed, technically-appropriate BMPs and other LID strategies; and
- Minimize erosion and other hydrologic impacts on natural drainage systems by requiring development projects to incorporate properly-designed, technically appropriate hydromodification control development principles and technologies.

City of Los Angeles Low Impact Development Manual

In November 2011, the City of Los Angeles adopted the Stormwater Low Impact Development (LID) Ordinance #181899) with the stated purpose of:

- Requiring the use of LID Standards and practices in future developments and redevelopments to encourage the beneficial use of rainwater and urban runoff
- Reducing stormwater/urban runoff while improving water quality
- Promoting rainwater harvesting
- Reducing off-site runoff and providing increased groundwater recharge
- Reducing erosion and hydrologic impacts downstream
- Enhancing the recreational and aesthetic values in our communities

The City institutionalized the use of LID techniques for development and redevelopment projects. Subsequent to the adoption of the Stormwater LID Ordinance, the City prepared the *Development Best Management Practices Handbook, Low Impact Development Manual,* dated June 2011, to describes the required BMPs (City of Los Angeles, 2011).

Other Cities LID

Various other cities within the County also have LID standards or guidance. The goals, objectives, and content of the LID document are similar to that of the County and City of Los Angeles, and are not referenced here.

City General Plans

The numerous cities encompassed by the EWMP area all have their own respective city General Plans, some of which may contain policies that address hazards and hazardous materials. As implementation of the individual structural BMP projects proceed, specific policies and objectives pertaining to hazards and hazardous materials from applicable city General Plans will be identified and evaluated on a project-by-project basis during subsequent CEQA environmental processes.

3.7.3 Impact Analysis

The proposed program's potential impacts were assessed using the CEQA Guidelines Appendix G Checklist. The following sections discuss the key issue areas identified in the CEQA Guidelines with respect to the program's potential hazard and hazardous material impacts.

Thresholds of Significance

Implementation of the proposed program may result in a potentially significant impact if any one of the following conditions would occur:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area.
- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

Project Impact Discussion

Routine Hazardous Materials Transport, Storage, Use, and Disposal and Accidental Release of Hazardous Materials Related to Construction and Maintenance

Impact 3.7-1: The proposed program would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or the accidental release during construction and maintenance activities.

Structural (Regional, Centralized, and Distributed) BMPs

Construction activities required for implementation of proposed program would potentially involve excavation, grading, drilling, trenching, and other ground-disturbing activities. Once constructed, the structural BMPs would require periodic maintenance activities such as channel clearing of sediment and vegetation maintenance that could include the use of chainsaws and weed- whackers that require fuel and oil. These anticipated construction and maintenance activities would likely require the transport, storage, use, and disposal of small amounts of hazardous materials, including fuels (e.g., gasoline, diesel), hydraulic fluids, oils and lubricants,

paint, and other similarly related materials in varying quantities on each project site. The release of these materials could occur during routine transport, disposal, or use, and could potentially injure construction workers, contaminate soil, and/or affect habitats, surface water bodies, or groundwater. Impacts associated with release, although likely localized and short-term, could potentially create a significant hazard to the public or the environment.

The majority of BMPs are more likely to be smaller-scale, site- or parcel-specific distributed type BMPs that do not use chemicals for treatment. Distributed BMPs primarily use passive treatment techniques that capture stormwater and then reduce pollutant loads and stormwater volumes through containment, filtration, infiltration, and/or treatment techniques. Stormwater is directed to these BMPs and contained or stored to settle or filter out sediment and trash load (e.g., detention basins and ponds, debris booms and nets), and then allow the stormwater to infiltrate or filter through pervious surfaces that can be vegetated (e.g., bioswales, green streets, planter boxes, bioretention, bioswales, planter boxes, green streets).

The regional and centralized structural BMPs that include the construction of a smaller number of larger physical structures would use more equipment and materials, and could use larger volumes of potentially hazardous materials for longer periods of time. For example, low flow diversion structures may require chlorine treatment facilities rather than discharge to the sewer for treatment, in which case larger volumes of chlorine would be required to be stored on-site. However, the materials used would mostly be chemicals, fuels, oils, and lubricants, all of which are relatively common to store, transport, and handle. In the unlikely event of a spill, these petroleum products are relatively easy to clean up, treat, or biodegrade. Hazardous materials that are more difficult to treat, such as solvents and metals, would not be expected to be used or released in large quantities. Centralized structural BMPs that are treatment facilities may use treatment chemicals, such as chlorine depending on the treatment techniques (other options include ozone, ultraviolet, or electrocoagulation), and the structures may be painted. However, chlorination and dechlorination uses should consider proximity to residential areas for safety reasons, as well as access for chemical deliveries.

The implementing agency and construction contractor would be required to comply with all relevant and applicable federal, state, and local laws and regulations that pertain to the transport, storage, use, and disposal of hazardous materials and waste during construction of the proposed program. Because the implementing agency and its contractor would be required to comply with all relevant laws and regulations associated with the transport, storage, use, and disposal of hazardous materials and waste, the construction impacts would be less than significant.

Operation of proposed structural BMPs would generally require minimal to no transport, usage, or disposal of hazardous materials for activities such as maintaining detention basins, constructed wetlands, or infiltration galleries, which would require periodic transport and use of chemicals for purposes of operating equipment (e.g., weed-whackers), maintenance activities, and the transport of workers in vehicles. The implementing agency would be required to comply with all relevant and applicable federal, state, and local laws and regulations that pertain to the transport, storage, use, and disposal of hazardous materials and waste during operation of the proposed program.

Under the Unified Program, the CalARP Program requires facilities that use regulated substances to develop a Risk Management Plan (RMP). A RMP would be required for the proposed program that uses hazardous materials. The RMP would be kept on file with the LACFD, in addition to a Hazardous Materials Release Response Plan within a Hazardous Materials Business Plan (HMBP). Existing treatment plants that undergo expansion will require an updated RMP and HMBP to include new facilities and any associated hazardous material use, storage, or transport. These are public documents that reflect a facility's overall effort to manage and prevent risks associated with the storage, use, and/or processing of regulated substances.

The California Hazardous Materials Release Response Plans and Inventory Program (CCR Title 19, Division 2, Chapter 4) requires companies that store, use, and/or transport hazardous materials to prepare a HMBP that includes an inventory of hazardous substances and an Emergency Response Plan (ERP) to address emergencies such as accidental releases. For example, a contractor using fuels for chainsaws and weed-whackers to control vegetation at detention basins and infiltration galleries would be required to prepare and implement an HMBP and an ERP for their company activities. The ERP would include procedures for responding to accidental spills of fuels that might occur at any site they work at. The ERP would describe the cleanup procedures to be implemented in the event of an accidental release.

In addition, the transport of hazardous materials is regulated by Caltrans. Transporters of hazardous waste would be required to be certified by Caltrans. All hazardous materials would be tracked by Caltrans and delivery vehicles would be required to use roadways approved for transportation of hazardous materials and maintain the proper storage containers for hazardous materials.

Implementation of the RMP, HMBP, and ERP and compliance with existing regulations would reduce potential risks to the public and environment due to accidental release of hazardous materials to less than significant.

Mitigation Measures: None required

Significance Determination: Less than significant

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, there would be no new facilities that would require additional or new use of hazardous materials. While the non-structural BMPs would include a broad range of municipal practices such as street cleaning, landscape management, storm drain operation, and more, which does produce debris and trash for disposal, the materials collected are not considered hazardous waste or materials requiring hazardous waste disposal. Regular street sweeping is one of the most cost-effective non-structural BMPs used to remove sediment, metals, petroleum products, trash, and vegetation that accumulate on streets. Maintaining a regular street sweeping schedule reduces the buildup of trash on streets and

prevents trash from entering catch basins and the storm drain system. The trash removed is disposed of in local landfills. Therefore, this program would have no impact relative to the routine use of hazardous materials.

Mitigation Measures: None required

Significance Determination: Less than significant

Accumulation of Potentially Hazardous Materials into BMPs

Impact 3.7-2: The proposed program could create a significant hazard to the public or the environment through the accumulation of potentially hazardous materials into BMPs.

Structural (Regional, Centralized, and Distributed) BMPs

The existing storm sewer systems convey stormwater and dry-weather flows to receiving waters that ultimately flow to the ocean. Operation of structural BMPs would not increase the potential for accidental releases of hazardous materials into the environment. Because of their function as water conveyance systems, the entire storm sewer system, as augmented by structural BMPs, would collect and retain sediment and chemicals from urban runoff, along with any accidental or illicit spills of hazardous materials. The introduction of hazardous materials into the storm sewer system could occur in large events as in a catastrophic spill, or could occur in small concentrations as in petroleum hydrocarbons and heavy metals picked up and carried by stormwater in urban runoff from the streets. Contaminants in the runoff water or as discrete concentrated spills could accumulate in the soils and vegetation of structural BMPs, as discussed below.

In the case of large spills that occur within the capture area of a BMP, regional BMPs would retain the spill and prevent any further contamination downstream since they would be designed to retain in-flow. Centralized BMPs, although generally designed to use flow-through or filter techniques, would still slow and retain much of the spill volume. Even distributed BMPs would slow and retain spills, although on a smaller scale. This retention would help to minimize impacts of large spills compared to existing conditions. Responding to major spills is the responsibility of local municipalities, usually led by the local fire department. Local jurisdictions prepare spill response plans that outline measures to contain and remediate spills of all kinds. The LAC OEM leads emergency response activities within Los Angeles County that would include responses to large hazardous spills. LAC OEM has prepared an Emergency Response Plan to coordinate response efforts. The responsibility for responding to and remediating spills would be similar to existing conditions.

All BMPs (regional, centralized, and distributed) would require cleanup following a spill event. Large spills could adversely affect the treatment systems including natural vegetation and filter matrices, including soil. Implementation of the BMPs would serve to add some protection against accidental or illicit spills compared with existing conditions. Cleanup of major spills would be

coordinated through the LAC OEM in coordination with applicable regulations and regulatory agencies, specifically the RWQCB or the Department of Toxic Substance Control (DTSC).

In the case of small concentrations of contaminants either from small spills or the accumulation of contaminants from urban runoff, BMPs would collect and retain pollutants on site. Potential contaminants include typical urban runoff contaminants, such as fuels, oil and grease, pesticides, PCBs, PAHs, metals, and nutrients, as well as sediment that would clog filter media (e.g., soil) or reduce volume capacity of the receiving BMP. Over time, infiltration of stormwater runoff could increase contaminant loading in shallow soils and groundwater. Contaminants behave differently when filtered through native soils. Some contaminants (e.g., oil, grease, metals) adsorb onto surficial soils and remain within a few feet of the surface, while other more soluble contaminants (e.g., fuels, nitrate, and phosphate) may be entrained to deeper soils or migrate all the way to the groundwater. Over a long period of time, concentrations of these contaminants could increase resulting in contaminated soils and groundwater. Pretreatment of source water in areas with the potential for heavy contaminant loading would be implemented as a required design feature for regional and centralized BMPs to assist in reducing long-term loading. In addition, non-structural source control BMPs would help reduce contaminant loading over time. The LID Standards for the County of Los Angeles and the various cities participating in the EWMP provide protocols for designing regional and centralized BMPs that minimize the potential for contaminant loading. For example, the LID Manual requires a certain distance to groundwater to ensure that adequate soil filtration occurs prior to the percolating water reaching a drinking water aquifer.

Distributed BMPs, although on a smaller parcel or site scale, would also be designed to collect and treat stormwater to reduce the loading of the smaller amounts of contaminants transported by their relatively smaller receiving areas. This would reduce contaminant loading to receiving waters compared with existing conditions while capturing contaminants in filter media. The vegetation and microbial activity in soil would work to biodegrade the typical fuels, oil, and grease in local urban runoff.

To address the accumulation of contaminants in soil at BMPs, operations and maintenance plans for BMPs that might accumulate constituents in surface soils and media will be developed to include periodic removal and replacement of these potentially impacted surface materials to reduce the potential for long-term loading leading to hazardous concentrations in soils and groundwater. Implementation of **Mitigation Measure HAZ-1** would reduce the potential for impacts to less-than-significant levels.

Mitigation Measure:

HAZ-1: Implementing agencies shall prepare and implement maintenance practices that include periodic removal and replacement of surface soils and media that may accumulate constituents that could result in further migration of constituents to sub-soils and groundwater. A BMP Maintenance Plan shall be prepared by Implementing Agencies upon approval of the BMP projects ,that identifies the frequency and procedures for removal and/or replacement of accumulated debris, surface soils and/or media (to depth where constituent concentrations do not represent a hazardous conditions and/or have the potential

to migrate further and impact groundwater) to avoid accumulation of hazardous concentrations and the potential to migrate further to sub-soils and groundwater. The BMP Maintenance Plan may consist of a general maintenance guideline that applies to several types of smaller distributed BMPs. For smaller distributed BMPs on private property, these plans may consist of a maintenance covenant that includes requirements to avoid the accumulation of hazardous concentrations in these BMPs that may impact underlying sub-soils and groundwater. Structural BMPs shall be designed to prevent migration of constituents that may impact groundwater.

Significance Determination: Less than significant with mitigation (The application of this mitigation measure to specific BMP types and categories are identified in Table 3.7-1.)

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. As a result, there would be no new facilities that would require additional or new use of hazardous materials. Therefore, this impact would have no impact relative to the accidental release of hazardous materials.

Mitigation Measures: None required

Significance Determination: Less than significant

Hazardous Materials near Schools

Impact 3.7-3: The proposed program could emit hazardous emissions or handle hazardous or acutely hazardous material, substances, or waste within one-quarter mile of an existing school.

Structural (Regional, Centralized, and Distributed) BMPs

BMPs may be installed throughout the watersheds. Some facilities may be installed within one-quarter mile of a school. Because construction and operation activities could potentially involve hazardous materials, the proposed program would have the potential to emit hazardous emissions or handle hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. In addition, BMPs that are constructed on school properties may collect spills from off-site sources or accumulate contaminants from urban runoff in soil in the BMPs over time.

As discussed in Impact 3.7-1, individual BMP projects would be required to comply with regulations that would avoid or minimize the potential for releases of hazardous materials during the construction of the BMPs, in response to accidental spills either during the construction of the BMP, or as a result of the BMP collecting contaminants from an off-site spill. Air quality emissions are discussed in Section 3.2. Therefore, the potential impacts to nearby schools are considered less than significant.

As discussed in Impact 3.7-2, BMPs that use soil to filter contaminants from urban runoff may accumulate contaminants over time. Implementation of the Mitigation Measure HAZ-1 discussed above would reduce the potential for impacts to less than significant levels.

Mitigation Measure: HAZ-1

Significance Determination: Less than significant with mitigation (The application of this mitigation measure to specific BMP types and categories are identified in Table 3.7-1.)

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, there would be no new facilities that would require additional or new use of hazardous materials. Therefore, this impact would have no impact relative to schools.

Mitigation Measures: None required

Significance Determination: Less than significant

Hazardous Materials Sites

Impact 3.7-4: The proposed program could be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, could create a significant hazard to the public or the environment.

Structural (Regional, Centralized, and Distributed) BMPs

If a BMP were to be located on a hazardous materials site, construction workers could be exposed to hazardous materials during earth-moving activities. In addition, the earth-moving activities could mobilize hazardous materials to downslope or downgradient locations. If a BMP were to be located downslope or downgradient of a hazardous materials site, construction workers at the selected proposed project could be exposed to hazardous materials migrating from the nearby site. This could be considered a significant impact requiring mitigation.

As discussed in Section 3.7.1, information on the presence of known hazardous materials sites is provided within the databases that make up the Cortese List, which includes information on hazardous materials sites from five regulatory agency lists. In addition, the LACFD is the designated LAC CUPA and maintains a list of sites under its responsibility. Reviewing these lists would identify known hazardous materials sites. It is possible that a proposed project may be on an unknown hazardous materials site not yet included in the databases. Contaminated soil and/or groundwater could be encountered during excavation posing a health hazard to construction crews, the public, and the environment. Implementation of **Mitigation Measure HAZ-2** would reduce the potential impact to less than significant.

Mitigation Measure:

HAZ-2: Prior to the initiation of any construction requiring ground-disturbing activities in areas where hazardous material use or management may have occurred, the implementing agencies shall complete a Phase I Environmental Site Assessment (ESA) in accordance with American Society for Testing and Materials Standard E1527-13 for each construction site. Any recommended follow up sampling (Phase II activities) set forth in the Phase I ESA shall be implemented prior to construction. The results of Phase II studies, if necessary, shall be submitted to the local overseeing agency and any required remediation or further delineation of identified contamination shall be completed prior to commencement of construction.

Significance Determination: Less than significant with mitigation (The application of this mitigation measure to specific BMP types and categories are identified in Table 3.7-1.)

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, there would be no new facilities that would require additional or new use of hazardous materials. Therefore, this impact would have no impact relative to known hazardous materials sites.

Mitigation Measures: None required

Significance Determination: Less than significant

Hazards near Public or Private Airports and Airstrips

Impact 3.7-5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, for a project within the vicinity of a private airstrip, the project could result in a safety hazard for people residing or working in the project area.

Structural (Regional, Centralized, and Distributed) BMPs

Aviation safety hazards can result if projects are sited in the vicinity of airports. Specifically, the land use compatibility plans at airports have land use restrictions, such as height, distracting light or glare, and attraction of birds. The construction of an object high enough to intersect the flight path of aircraft would result in aircraft collision hazards and risks of death or injury to people in the aircraft and on the ground if the aircraft crashes. Similar hazards would be created if a proposed project were to result in distracting light or glare that could interfere with a pilot's ability to control the flight path of the aircraft, or if a proposed project were to create an attraction to wildlife, especially birds, that would pose hazards to aircraft.

The paved areas of airports (excluding the landing areas and taxiways, which have specific aircraft support requirements), and the undeveloped buffer zones around airports are potential sites for BMPs. Paved areas not used by aircraft could use permeable pavement and rainwater from buildings and paved areas could be routed to infiltration basins, bioswales, and subsurface infiltration galleries.

None of the proposed structural BMPs would result in the construction of structures of significant height or generating significant glare or distracting light. Larger regional or centralized BMPs, such as treatment facilities or larger aboveground detention basins would not be permitted within the landing and takeoff flight paths. However, some structural BMPs, such as detention basins that store water for a period of time or constructed wetlands that would increase or improve wildlife habitat, could be constructed on or near airports and could result in attracting wildlife. Deer and birds are known wildlife hazards to airports. If the proposed project is at or near an airport, this could increase hazards to aircraft from wildlife.

The FAA Advisory Circular No: 150/5200-33B provides specific guidance on development projects for new stormwater management facilities and artificial marshes. Implementation of **Mitigation Measure HAZ-3** for all BMPs that are within the airport land use plan area, regardless of whether the airport receives federal funding, would reduce the potential impact to less than significant.

Mitigation Measure:

HAZ-3: Implementing Agencies shall require that those BMPs that are within an airport land use plan area are compatible with criteria specified in FAA Advisory Circular No: 150/5200-33B (FAA, 2007). If the proposed BMP is within the minimum separation criteria, the Implementing Agency shall consult with the airport and collaboratively evaluate whether the potential increase in wildlife hazards can be mitigated.

Significance Determination: Less than significant with mitigation (The application of this mitigation measure to specific BMP types and categories are identified in Table 3.7-1.)

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, there would be no new facilities that would require additional or new use of hazardous materials. Therefore, this impact would have no impact relative to airports.

Mitigation Measures: None required

Significance Determination: Less than significant

Impact 3.7-6: The proposed program could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Structural (Regional, Centralized, and Distributed) BMPs

Construction activities associated with implementation of structural BMPs may include installations of pipelines or other infrastructure within roadway rights-of-way. These construction activities could potentially result in temporary lane or roadway closures or block access to roadways and driveways for emergency vehicles. Such construction-related impacts, although temporary, could potentially impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. Impacts to access would be possible during the construction of larger scale regional or centralized BMPs, and less likely for the smaller-scale distributed BMPs.

Notification to emergency services providers would ensure that emergency responsiveness was not impaired. Once installed, the BMPs would have no effect on emergency response plans or evacuations plans.

Mitigation Measure: None required

Significance Determination: Less than significant

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, there would be no new facilities that would require additional or new use of hazardous materials. Therefore, this impact would have no impact relative to emergency response plans or emergency evacuation plans.

Mitigation Measures: None required

Significance Determination: Less than significant

Impact 3.7-7: The proposed program could expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

Structural (Regional, Centralized, and Distributed) BMPs

The grading of unimproved areas could require the use of mechanized equipment with internal combustion engines. The equipment would include excavators, backhoes, drilling rigs, and support trucks. Parts of the engines and exhaust systems could get hot enough to ignite dry vegetation and cause a wildfire and expose people or structures to significant risk.

Most of the BMPs are likely to be distributed BMPs constructed within developed urban areas with no possibility for wildfires. However, some regional and centralized BMPs could be

constructed in rural undeveloped areas. Larger-scale centralized BMP treatment facilities could be built in previously undeveloped areas, since the urban areas are largely built out.

As discussed in the Setting section, the CAL FIRE fire hazard severity zone maps identify areas within the EWMP with high and very high fire hazard severity categories. Structural BMPs conducted within these areas would have the added potential of causing wildfires. However, the requirements of the DOT and California Vehicle Code for spark arrester protection on vehicles would reduce the potential risk. Therefore, adherence to federal and state regulations would reduce the potential impacts from wildfires to less than significant. No mitigation measures would be required.

Mitigation Measures: None required

Significance Determination: Less than significant

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. As a result, there would be no new facilities that would have the potential to create a risk of wildfire. Therefore, this impact would have no impact relative to wildfires.

Mitigation Measures: None required

Significance Determination: Less than significant

Cumulative Impact Discussion

Structural (Regional, Centralized, and Distributed) BMPs

BMPs would be constructed throughout the watersheds. Most of the distributed BMPs would be small in scale and would not result in cumulatively significant impacts due to increased hazards from construction or operation. However, the combination of BMPs throughout the region would change the flow paths of stormwater and urban runoff that currently occurs in the region, resulting in the retention of pollutants generally within the soil of the BMPs that use soil for filtration and retention. Mitigation Measure HAZ-1 would reduce the potential for concentrations of these pollutants to result in localized hazardous conditions at individual BMP locations. Mitigation Measure HAZ-2 would mitigate the accumulation of contaminants in soil at BMPs. Cumulatively, throughout the region, the retention and treatment of pollutants within each watershed and the reduction of pollutant loading in waterways will substantially benefit water and sediment quality of the region's habitats, rivers, and beaches. Therefore, the project's potential contribution to cumulative effects on hazards and hazardous materials is considered beneficial.

Mitigation Measures: HAZ-1 and **HAZ-2**

Significance Determination: Less than significant with mitigation. (The application of this mitigation measure to specific BMP types and categories are identified in Table 3.7-1.)

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, there would be no new facilities that would contribute to cumulative impacts.

Mitigation Measures: None required

Significance Determination: Less than significant

TABLE 3.7-1
SUMMARY OF HAZARDS IMPACTS REQUIRING MITIGATION MEASURES

	Thresholds of Significance							
Structural BMPs	**Transport, use or disposal of hazardous materials**	**Accumulation of hazardous materials**	**Hazardous emissions near schools**	**Located on hazardous materials site**	**Vicinity of airport or airstrip**	**Impair implementation of emergency response plan**	**Exposure to wildland fires**	**Cumulative Impacts**
Applicable Mitigation Measures:	**None Required**	**HAZ-1**	**HAZ-1**	**HAZ-2**	**HAZ-3**	**None Required**	**None Required**	**HAZ-1 and HAZ-2**
Regional BMPs								
Regional Retention and Infiltration	No	Yes	Yes	Yes	Yes	No	No	Yes
Regional Capture, Detention and Use	No	Yes	Yes	Yes	Yes	No	No	Yes
Centralized BMP								
Bio-filtration	No	Yes	Yes	Yes	Yes	No	No	Yes
Constructed Wetlands	No	Yes	Yes	Yes	Yes	No	No	Yes
Treatment/Low-Flow Diversions	No	Yes	Yes	Yes	Yes	No	No	Yes
Creek, River, Estuary Restoration	No	Yes	Yes	Yes	Yes	No	No	Yes
Distributed BMPs								
Site-Scale Detention	No	Yes	Yes	Yes	Yes	No	No	Yes
LID – Infiltration/Filtration BMPs – Porous Pavement, Green Streets, Bioswale/Filter Strips, downspout disconnects	No	Yes	Yes	Yes	Yes	No	No	Yes
LID – Green Infrastructure – Capture and Use – Cisterns, Rain Barrels, Green roofs, Planter Boxes	No	Yes	Yes	Yes	Yes	No	No	Yes
Flow-through Treatment BMPs	No	Yes	Yes	Yes	Yes	No	No	Yes
Source-Control Treatment BMPs (catch basin inserts/screens, hydrodynamic separators, gross solids removal devices)	No	Yes	Yes	Yes	Yes	No	No	Yes
Low-Flow Diversion	No	Yes	Yes	Yes	Yes	No	No	Yes

NOTE: These conclusions are based on typical size and function of BMPs.

3.8 Hydrology and Water Quality

This section describes the existing hydrology and water quality conditions within the project area and evaluates whether the proposed program would result in significant hydrology or water quality impacts.

3.8.1 Environmental Setting

Surface Water

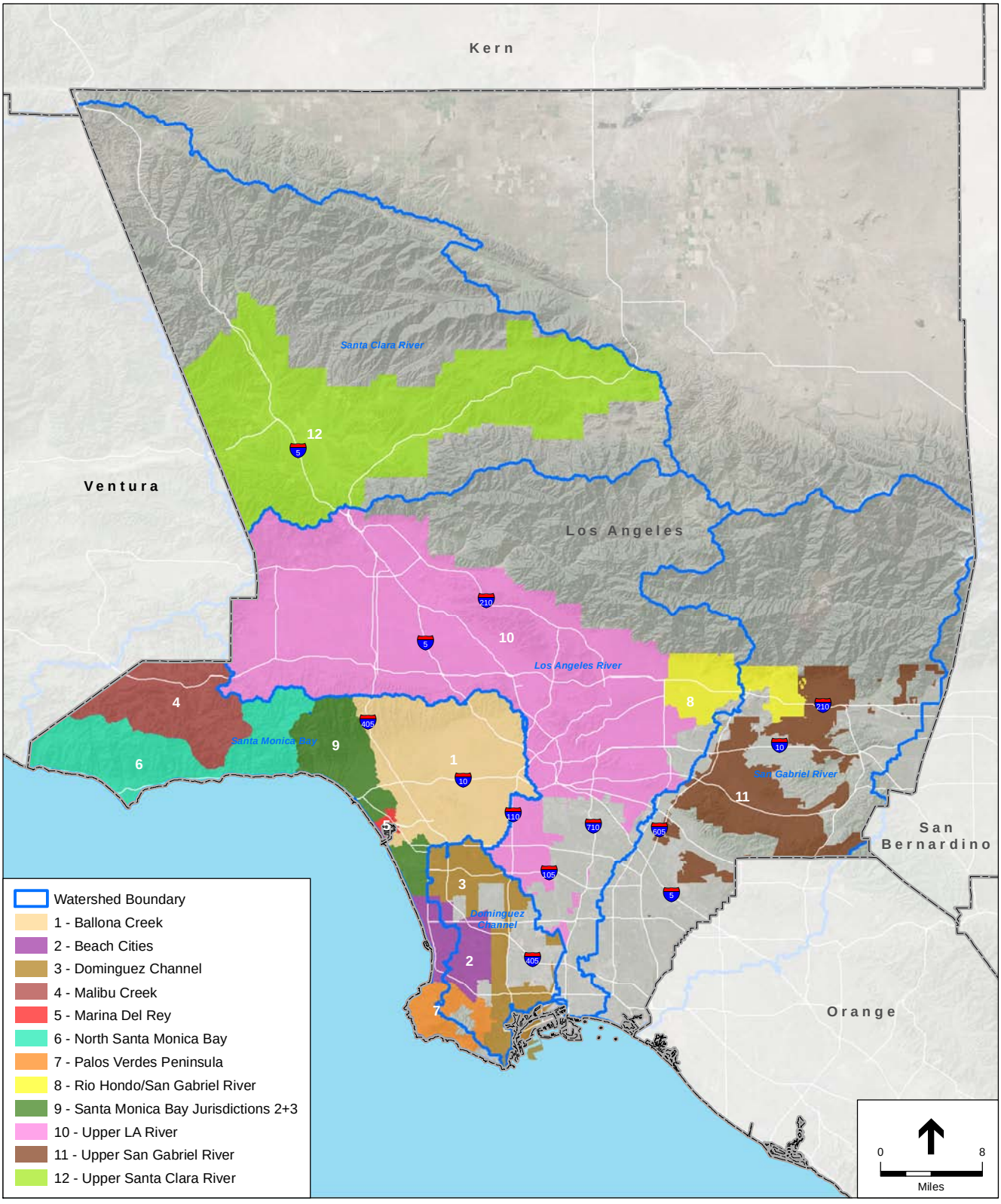
Climate and Precipitation

The 12 Enhanced Watershed Management Program (EWMP) Areas are located within Los Angeles County (County). The coastal mountains and plains within this region have a mediterranean climate with mild rainy winters and warm dry summers, while the inland slopes and basins tend to experience more extreme temperatures and less precipitation. These variations of climate within the region can be attributed to variable topography. Higher elevations generally receive more precipitation than nearby areas at lower elevations. Prevailing winds from the west and northwest carry moist air from the Pacific Ocean inland until it is forced upward by the Santa Monica, San Gabriel, or Santa Susanna Mountains. The resulting rainfall occurs mostly during discrete, episodic events between November and March.

Annual precipitation can vary significantly between drought and flood conditions; periodic and occasionally severe droughts and floods within the area are well-documented (LARWQCB, 1994), and the potential for extreme precipitation (maximum intensity of precipitation for periods of 12 hours or longer which might be expected at intervals of ten to 100 years) is greater in portions of the San Gabriel Mountains than practically anywhere else in the continental United States (WERC, 2014). Average annual rainfall within the Los Angeles Basin is approximately 14.5 inches, though local averages can vary considerably depending on location within the basin (WERC, 2012).

Los Angeles County Watersheds

As shown in **Figure 3.8-1**, the portion of Los Angeles County covered in this Program Environmental Impact Report (PEIR) is divided into distinct watersheds, including: the Los Angeles River, San Gabriel River, Rio Hondo, Santa Clara River north of the Santa Susana Mountains, Dominguez Channel, and coastal drainages stretching from Malibu to Palos Verdes, including Ballona Creek. The 12 EWMP areas were identified as portions of these greater watersheds that contain impaired water bodies needing structural Best Management Practices (BMPs) to comply with stormwater discharge permit requirements.



SOURCE: ESRI.

LA County PEIR EWMP . 140474

Figure 3.8-1

Watersheds and EWMP Groups

Los Angeles River

The 51-mile Los Angeles River stretches from its headwaters in the upper San Fernando Valley to its mouth in San Pedro Bay, draining the Santa Susana and San Gabriel Mountains and San Fernando Valley. Following several catastrophic and deadly floods in the early 1900s, the U.S. Army Corps of Engineers channelized and armored the river levees and numerous tributaries with concrete to mitigate future flooding concerns. The channelization of this stream, completed in the 1960s, ended ongoing flooding concerns and provided land for the construction of homes and businesses within the previous floodplain.

San Gabriel River

The San Gabriel River is bound by the San Gabriel Mountains to the north, San Bernardino to the east, Los Angeles River to the west, and Pacific Ocean to the south. The San Gabriel River flows 58 miles south until its confluence with the Pacific Ocean. Major tributaries to the San Gabriel River include Walnut Creek, San Jose Creek, Coyote Creek, and numerous storm drains entering from the 19 cities that the San Gabriel River passes through. Much of the channel above the Whitter Narrows is unlined. Storm flows are diverted from the riverbed into four different spreading grounds by dams for ground water recharge. The 10-mile segment below Whittier Narrows is a concrete-lined channel.

Rio Hondo

The Rio Hondo watershed is a subwatershed of the Los Angeles River watershed and is also linked to the adjacent San Gabriel River watershed. This link reflects both natural hydrologic processes and human intervention. Historically, the Los Angeles and San Gabriel Rivers were wide, shallow rivers consisting of a braided series of channels that would periodically intermingle following large storm events. Today, the rivers have been engineered into three channels created to bring water from the San Gabriel to the Rio Hondo, making the Rio Hondo serve as an outlet for the San Gabriel River.

Dominguez Channel

Named for the Juan Jose Dominguez family who owned a tract of 75,000 acres of land (Rancho San Pedro) from the Los Angeles River west to the Pacific Ocean in the late 1700s, the channel is a 15.7-mile-long waterway that drains a 110 square miles. The headwaters begin in Hawthorne and eventually empty into the East Basin of the Port of Los Angeles. Today, the Dominguez Channel watershed is 96 percent developed.

Santa Clara River

The Santa Clara River watershed encompasses approximately 1,030 square miles. The Upper Santa Clara River watershed is located primarily within both Ventura (243 square miles) and Los Angeles County (786 square miles), as well as a very small portion of Kern County. The Santa Clara River is one of the few natural river systems remaining in Southern California originating in the Angeles National Forest and flowing westward for approximately 84 miles to the Pacific Ocean. Throughout its length, the river crosses through farmland, undeveloped lands, and urban areas. The lower Santa Clara River watershed is located primarily within Ventura County and out of the study area for this project.

Coastal Drainages

All along the Los Angeles County coastline, distinct drainages flow from uplands to the ocean. In Malibu, these drainages within the Santa Monica Mountains are generally short, steep, and relatively natural channels. Malibu Creek drains a wide area that includes areas within and north of the Santa Monica Mountains. In the urbanized areas along Santa Monica Bay, the streams have been channelized.

Ballona Creek is a 9-mile-long waterway that drains the Santa Monica Mountains on the north and the Baldwin Hills on the south. Ballona Creek flows through Culver City until emptying into Santa Monica Bay between Marina del Rey and Playa del Rey. Following damaging flooding events, the Los Angeles County Flood Control District (LACFCD) concreted Ballona Creek and its tributaries during the 1930s. The Ballona Wetlands at the mouth of the creek are one of the last significant coastal wetland areas in Los Angeles County.

EWMP Groups

The proposed program has been divided into 12 EWMP Areas that have been organized by watershed groups that share comparable conditions. The key linkages that were used to distinguish the various EWMP groups were percentage of open space and urbanization, similar focus on the types and percentage of BMPs, and common hydrologic conditions. The following summaries are the general characteristics of the watersheds within the EWMP groups and the overall strategies for BMP implementation that reflect these characteristics. The 12 EWMPs are consolidated into six watershed areas that are grouped by similar watershed characteristics. This summary provides additional detail on the hydrologic features and strategies for the distribution and locations of potential and priority BMPs. Figures are referenced and provided for each of the six consolidated watershed areas and also provide hydrologic features and the locations and distribution of planned and priority regional/centralized BMPs. The priority BMPs are a subset of the planned BMPs and have been selected as priority projects based on a screening assessment of the planned projects. Priority projects will be implemented before additional planned projects. Distributed BMPs are planned to be implemented throughout the urbanized areas of the EWMPs. The following summaries of the six watershed areas also highlight the linkage between the BMP strategies with hydrologic conditions in these watersheds that provide a basis to assess potential environmental impacts presented in the assessment section.

1. **South Santa Monica Bay EWMP Watersheds (Figure 3.8-2)** (Marina del Rey, Ballona Creek, Beach Cites, South Santa Monica Bay Jurisdictional Group 2 and 3, and Peninsula Cities EWMP groups) – These watersheds are dominated by urbanized beach communities with high-density residential and commercial land uses throughout the watershed. Key BMP strategies in these watersheds are to address dry- and wet-weather flows that may impact beach water quality through bacteria loading. Other water quality priorities include trash, marine debris, metals, and toxics. The BMP strategy includes low-flow diversions (LFDs) to comply with dry-weather metals and bacteria Total Maximum Daily Loads (TMDLs). Although large regional and centralized retention and infiltration BMPs will be part of the pollutant load reduction strategy, the predominate structural BMP will be smaller distributed BMPs such as bioinfiltration, media filtration and flow-through BMPs located in street rights-of-way, parking lots, landscaped areas,

and as part of green streets and buildings. Due to the high ground water near the shore, capture and reuse regional projects or treatment BMP opportunities will be preferred. The receiving waters for the South Santa Monica Bay include the Pacific Ocean, the Ballona Creek, and the Marina del Rey Harbor. The Ballona Creek is channelized through the urbanized area of the Ballona Watershed. The Ballona Wetlands received muted tidal flow from Ballona Creek that is tidally influenced (see the photograph below).

Channelized Ballona Creek and Ballona Wetland

Marina del Rey EWMP – Because of the tidal influence of the marina to most of the watershed, regional projects will be located near the upstream end of the watershed, where groundwater depths are favorable. The tidally influenced areas will consist of mostly treatment distributed BMPs including bioinfiltration or tree wells.

Ballona Creek EWMP – Regional infiltration BMPs will be well distributed throughout the watershed and will be incorporated with distributed BMPs consisting mostly of treatment BMPs such as green streets. LFDs may also be pursued to comply with dry-weather TMDL requirements.

Beach Cities EWMP – The watershed includes a portion of the Beach Cities EWMP that drains to the Pacific Ocean. The Beach Cities will focus their efforts on regional projects near the outlet on the Beach similar to the Hermosa Beach Infiltration Trench or the Torrance infiltration basins. Where regional projects are infeasible, distributed projects such as green streets will be implemented.

Santa Monica Bay J2/3 – Many efforts have already been completed for the Santa Monica Bay J2/J3 watershed, including LFDs and reuse facilities. The group will investigate the possibility of more regional projects that are able to capture and reuse the flow. Remaining areas will be subject to distributed BMPs.

Peninsula Cities – The Peninsula Cities area (SMB J7) is mostly anti-degradation sites, so there will not be many control measures in this subwatershed.

2. **Northern Coastal EWMP Watersheds (Figure 3.8-3)** (Malibu Creek and North Santa Monica Bay Coastal Watershed EWMP groups) – These watersheds are characterized by lower-density development along the coast and the larger creeks with greater open space and park areas inland. There is increased development in the upper areas of the Malibu Creek watershed. Receiving waters in these watersheds are largely unlined and riparian corridors remain.

   Water quality priorities include bacteria, toxics, trash, and nutrients as well as benthic community impairments. Key BMP strategies are to address bacteria loading to the beaches and inland waters, but because of the lower development and largely decentralized infrastructure, LFDs are not the only strategy to address this priority issue. In addition to LFDs, larger centralized BMPs that include detention and infiltration and detention and filtration will be used for Municipal Separate Storm Sewer System (MS4) outfalls that are in close proximity to the receiving waters. Smaller distributed BMPs that include biofiltration, media filtration, green streets, and flow-through BMPs will be used in greater percentage than larger centralized BMPs and would be located in developed areas as retrofit BMPs.

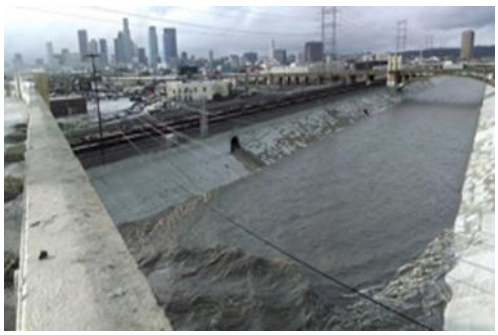
Marie Canyon Low-Flow Diversion – Malibu Creek

3. **Upper San Gabriel Watershed (Figure 3.8-4) –** This watershed is characterized by higher-density development in the lower watershed area and lower-density development and open space in the upper watersheds where the foothills to the San Gabriel Mountains begin. The priority pollutants in these watersheds include selenium in dry-weather flows and metals in storm flows in Coyote Creek. These watersheds are further differentiated by the importance of groundwater recharge basins that are supplied by a series of reservoirs further upstream in the mountains. The San Gabriel River is unlined in the upper watershed and conveys controlled non-storm and storm flows to recharge basins and downstream sections of the river.

Upper San Gabriel River

The BMP strategy in these watersheds focus more on regional and centralized retention and infiltration BMPs that take advantage of the favorable groundwater recharge characteristics of this area. These BMPs are located near or adjacent to the river. This watershed includes stream restoration that uses natural unlined tributaries and centralized bioinfiltration BMPs in parks and open spaces with favorable subsurface soils that promote higher infiltration rates. Distributed smaller BMPs are located in urbanized areas as retrofits in existing developments and streets.

4. **Upper Los Angeles River Watershed and Rio Hondo/San Gabriel Watershed (Figure 3.8-5)** – These watersheds traverse a large diverse area of the Los Angeles Basin with characteristics of Upper San Gabriel in the farthest upper reaches near the foothills, but, for most part, these watersheds are characterized by greater urbanization similar to the Ballona Creek watershed. The greater urbanization also results in additional priority pollutants compared to the Upper San Gabriel watershed and includes nutrients, trash, metals, bacteria, and sediment impacted by metals and organic compounds (DDT, PCBs, PAHs). The Rio Hondo/San Gabriel EWMP is characterized by increasing urbanization south of the foothills and industrial and commercial development along the I-210 corridor. The strategy for the locations and types of BMP is to use remaining available sites for retention and infiltration that takes advantage of the favorable infiltration rates of this area, including the existing groundwater recharge basins near the San Gabriel River.



Los Angeles River

The Los Angeles River is approximately 51 miles long, and five of six reaches lie within the Upper Los Angeles River EWMP. The natural hydrology of the Los Angeles River watershed has been altered by channelization and the construction of dams and flood control reservoirs. The Los Angeles River and many of its tributaries are lined with concrete for most or all of their length. Soft-bottom segments of the Los Angeles River occur where groundwater upwelling prevents armoring of the river bottom. Because of the greater extent and number of pollutant priorities, the BMP strategy in the Upper Los Angeles River watershed and Rio Hondo watershed includes well over a hundred planned regional and centralized retention and infiltration BMPs that take advantage of the favorable groundwater recharge characteristics in defined areas of the watershed. Also planned are centralized treatment wetlands and bioinfiltration BMPs in parks and open spaces with favorable subsurface soils that promote higher infiltration rates. The BMP strategy also includes distributed smaller BMPs located throughout the urbanized areas of the watershed as retrofits in existing developments and streets. LFDs to comply with dry-weather bacteria TMDLs will also be included.

5. **Dominguez Channel Watersheds (Figure 3.8-6)** (Dominguez Channel EWMP and Beach Cities EWMP– This watershed includes the Dominquez Channel EWMP and a portion of the Beach Cities EWMP that drains to Dominquez Channel. This watershed is differentiated by a larger area of industrial land use. Because of the high density of development and industrial land uses, large regional and centralized infiltration-type BMPs will be limited. The structural BMP strategy will be more LFDs, both large (centralized) and small (distributed), located at MS4 outfalls near the channelized Dominguez Chanel. The other BMP strategy is the use of smaller distributed BMPs that include the low-impact development (LID) type of BMPs, such as green streets and biofiltration BMPs. These distributed BMPs will be retrofit type BMPs that treat runoff from already developed properties and are located in street rights-of-way, parking lots, and limited open areas on public and private parcels. Distributed flow-through treatment BMPs will also be the other predominant BMP that will be retrofitted to the existing MS4 systems.

Dominquez Channel

6. **Upper Santa Clara River Watershed (Figure 3.8-7) –** The Santa Clara River watershed is distinctive in that it is predominantly open space—nearly 90 percent of the watershed is open space with approximately 88 percent being undeveloped. The watershed contains one of the last remaining natural rivers in Southern California. In years of significant rainfall, ephemeral springs and year-round flows exist in some tributaries and natural upstream areas. Flows in Santa Clara River reaches that pass through the EWMP area are predominantly stormwater runoff during wet-weather months and water reclamation plant effluent discharges in the drier months.

Upper Santa Clara River

Priority pollutants in this watershed are bacteria, nutrients, and chloride. In the source assessments for the nutrients TMDL and the chloride TMDL for the Santa Clara River, the storm drain system is not considered the primary source of these pollutants. Lake Elizabeth is also subject to a trash TMDL. The EWMP will evaluate potential MS4 nutrients and chlorides contributions and serve as the implementation plan for the bacteria TMDL. BMP strategies for this watershed are likely to include a focus more on regional and centralized detention and infiltration BMPs and less on filtration-type BMPs, which are not as effective at addressing bacteria.

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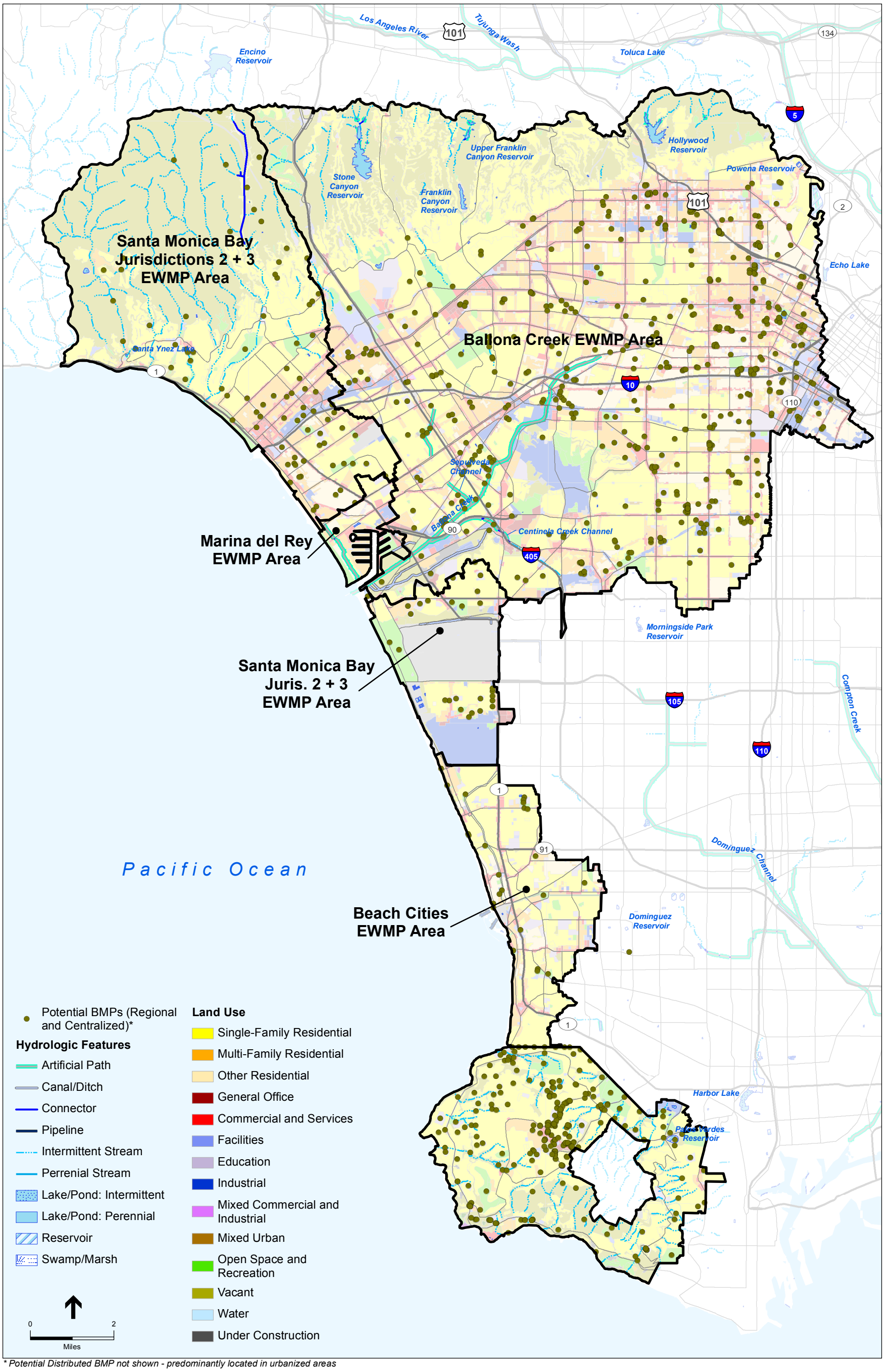


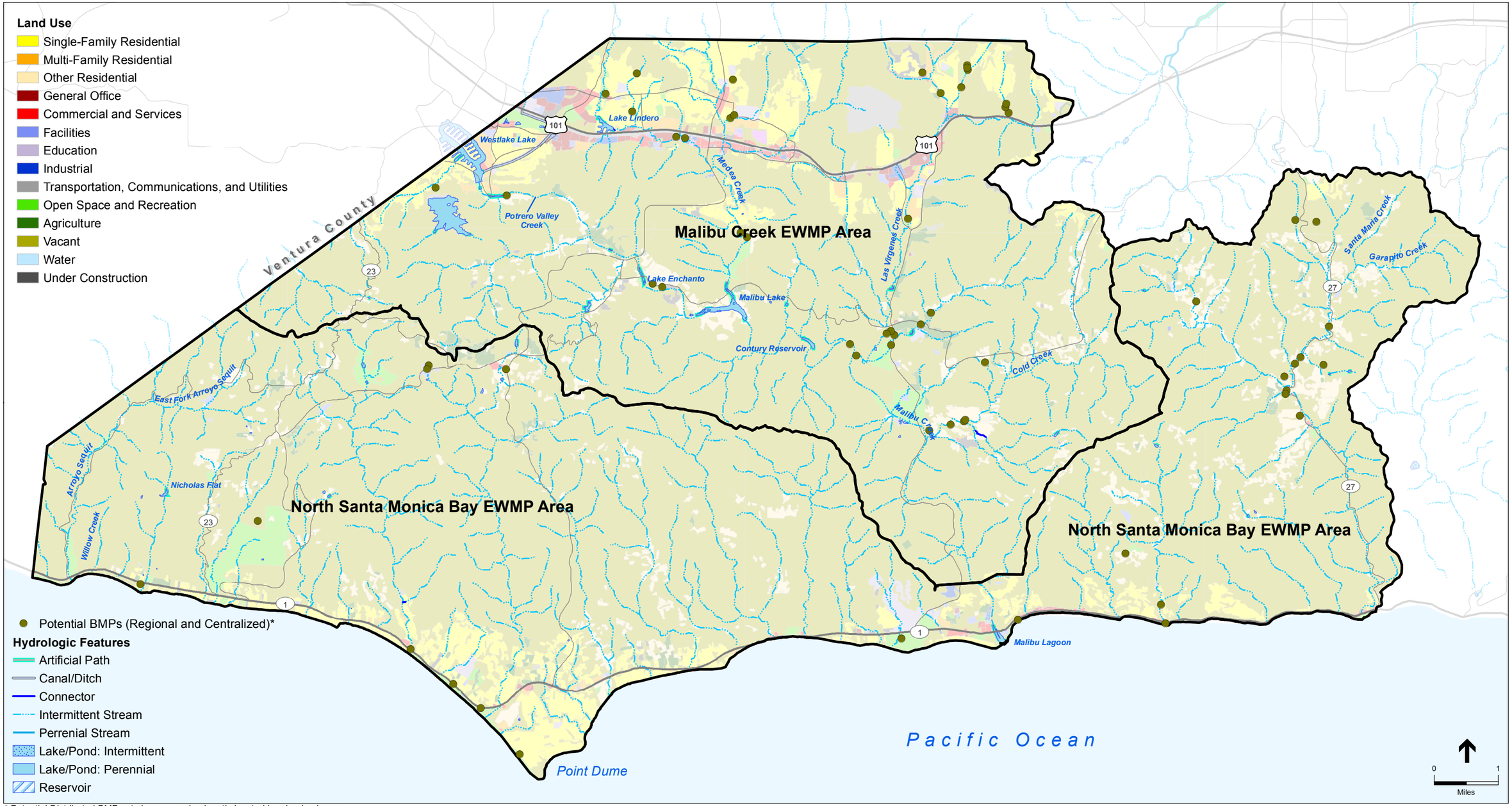
** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: NHD 2014 (hydro data); County of LA 2005 (land use)

LADPW EWMP PEIR . 140474

Figure 3.8-2

South Santa Monica Watershed Area – Hydrologic Features and Potential BMP Locations



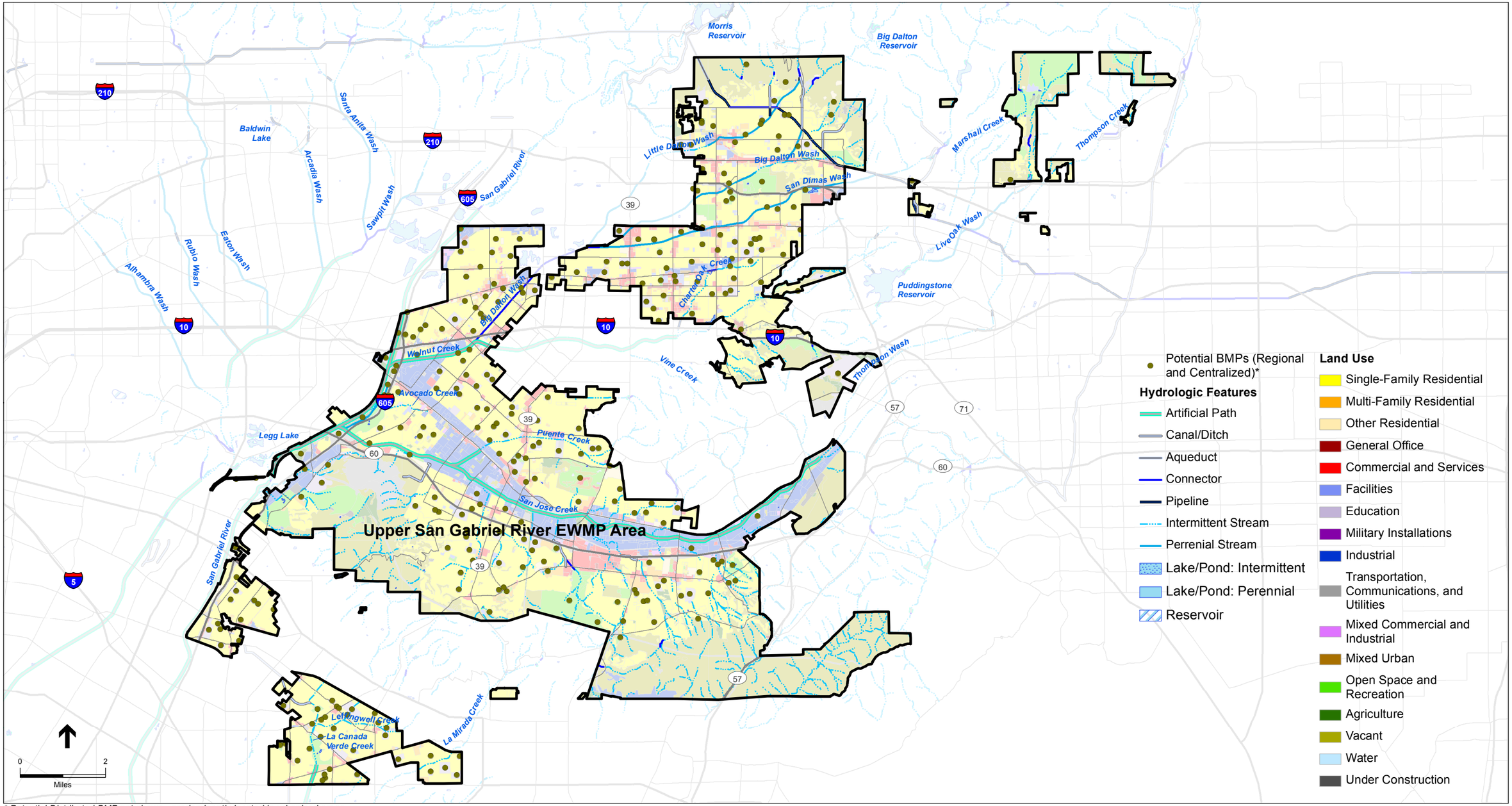
** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: NHD 2014 (hydro data); County of LA 2005 (land use)

LADPW EWMP PEIR . 140474

Figure 3.8-3

Northern Coastal Watershed Area – Hydrologic Features and Potential BMP Locations

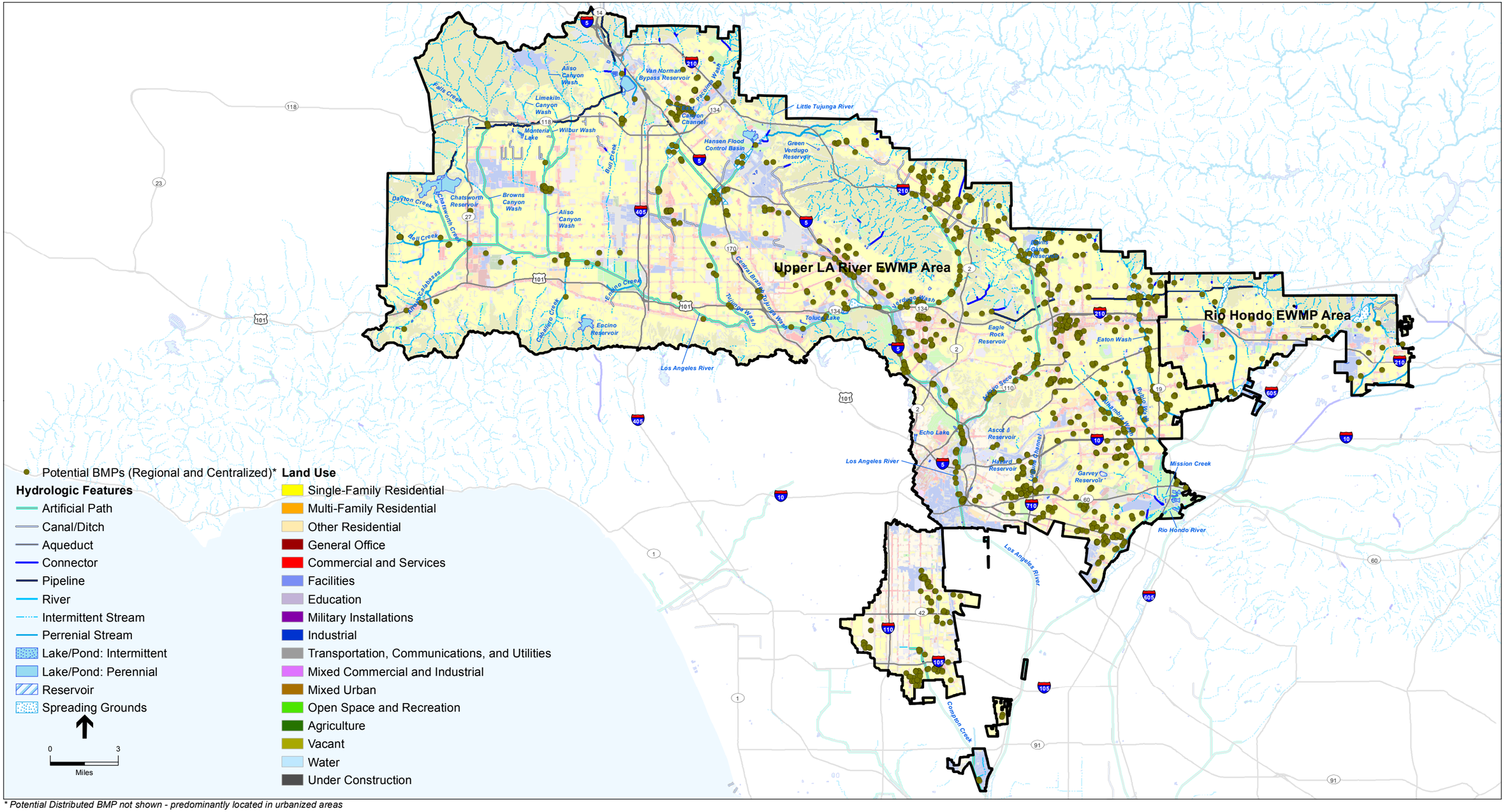


** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: NHD 2014 (hydro data); County of LA 2005 (land use)

Figure 3.8-4

Upper San Gabriel Watershed Area – Hydrologic Features and Potential BMP Locations



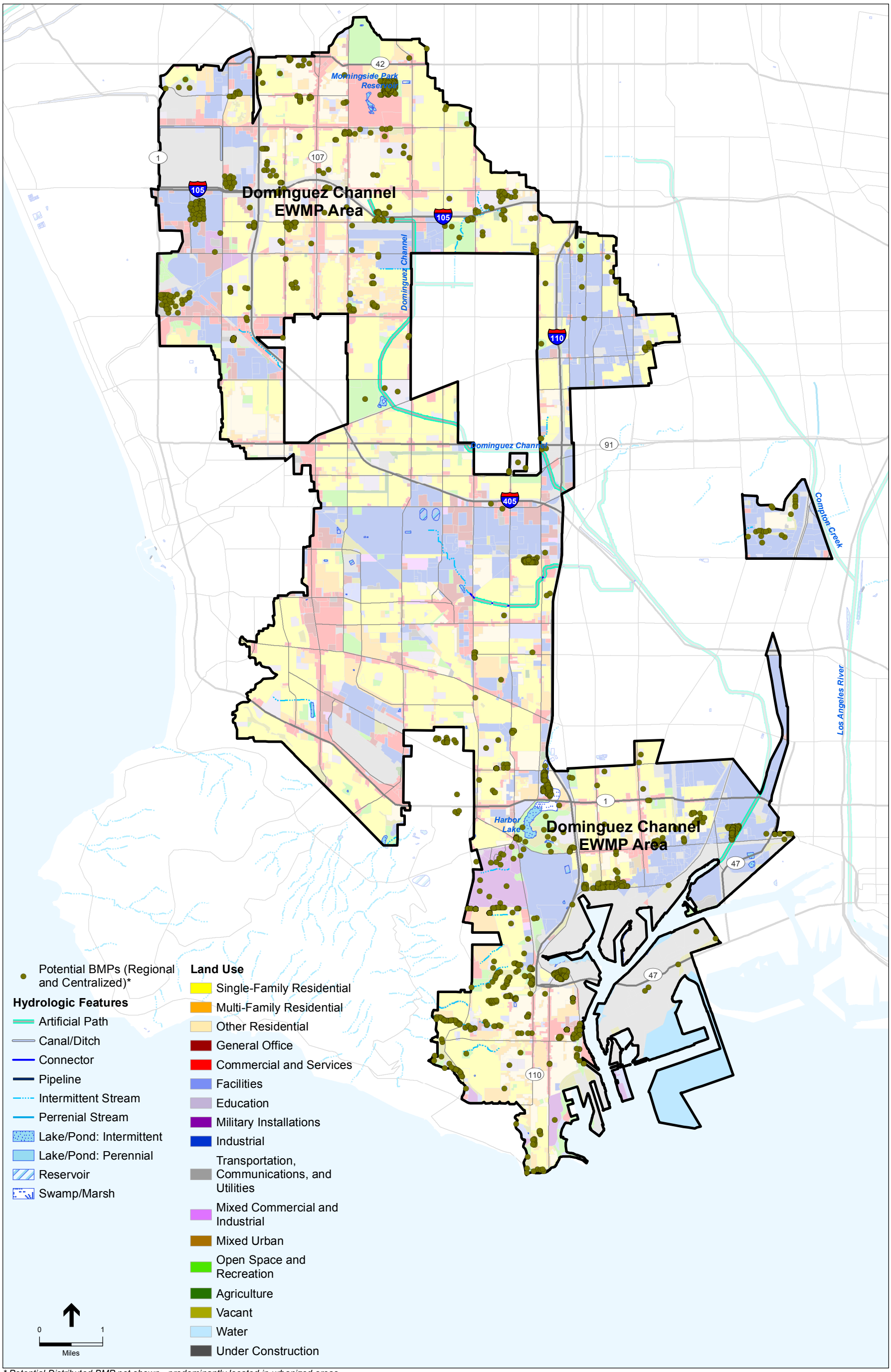
* *Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: NHD 2014 (hydro data); County of LA 2005 (land use)

LADPW EWMP PEIR . 140474

Figure 3.8-5

Upper Los Angeles and Rio Hondo/San Gabriel Watershed Area – Hydrologic Features and Potential BMP



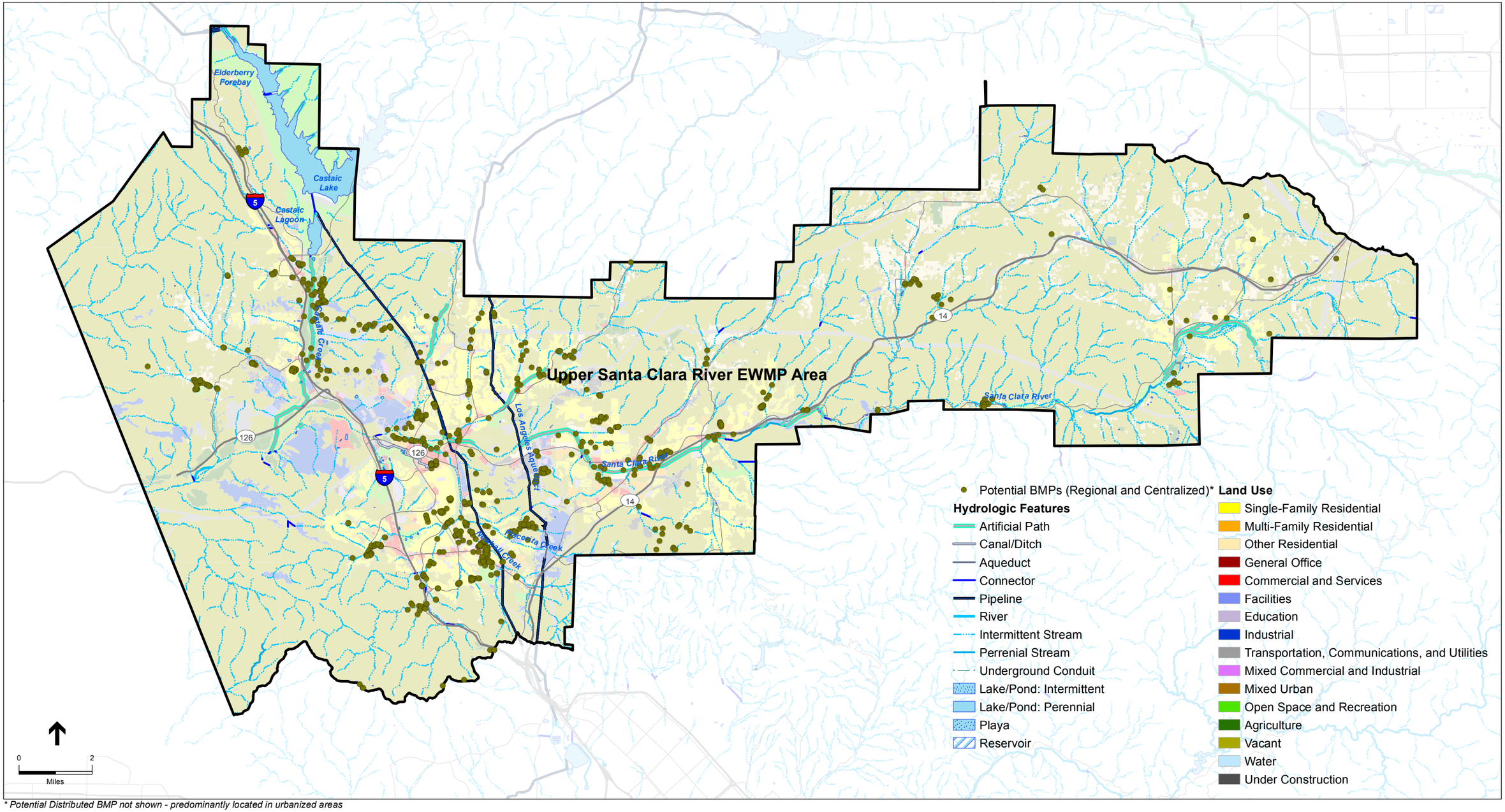
** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: NHD 2014 (hydro data); County of LA 2005 (land use)

LADPW EWMP PEIR . 140474

Figure 3.8-6

Dominquez Channel Watershed Area – Hydrologic Features and Potential BMP Locations



** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: NHD 2014 (hydro data); County of LA 2005 (land use)

Figure 3.8-7

Upper Santa Clara Watershed Area – Hydrologic Features and Potential BMP Locations

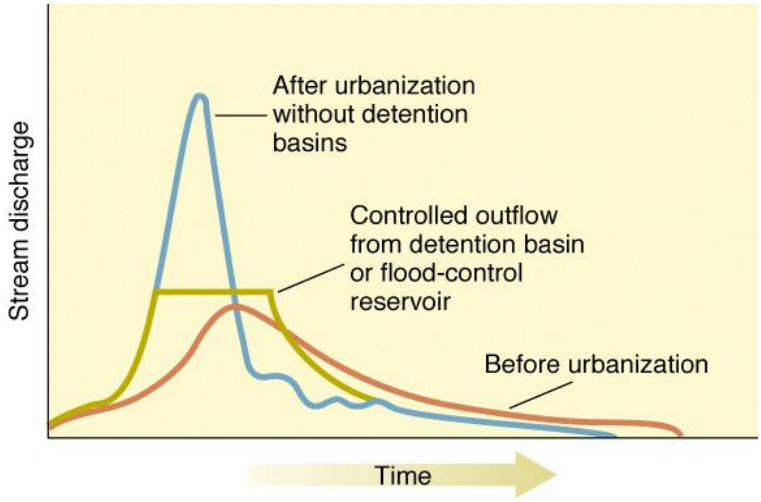
Effects of Urbanization on Streamflows

Prior to urbanization in the mid to late 1800s, surface water hydrology within the Los Angeles Basin was dominated by natural processes of watershed runoff and recharge. During the winter rainy season, runoff from the watershed would feed stream flows and recharge groundwater aquifers in the lower alluvial portions of the basin. As the intensity, frequency, and duration of winter rains decreased, stream flows would recede in response to decreased watershed runoff. In many locations, especially smaller streams, portions of streambeds would seasonally go dry (ephemeral), with surface flows only reestablished by the return of winter rains. In other streams, near-surface groundwater would maintain base flows throughout the summer, supporting wetland and floodplain habitats. During the summer, coastal streams would typically form freshwater-brackish lagoons at creek mouths behind sand berms built by summer wave action; these lagoons also supported seasonal aquatic habitats.

Pre-Development Hydrology is characterized by dry-weather flows fed by groundwater seepage fed by recharge during the rainy season. Some creeks and rivers are ephemeral and dry up in the dry season.

Most of the historic hydrologic processes have been fundamentally changed throughout the Los Angeles Basin due to urbanization. The replacement of native soils with largely impermeable surfaces such as concrete and asphalt has dramatically altered storm hydrographs (graph showing the flow rate in a stream or channel over the storm event) as shown in Figure 3.8-8, increasing runoff rates and flood volumes that have to be safely routed away from people, homes, businesses, and infrastructure. Floodplain and wetland habitats that formerly provided water quality treatment and groundwater recharge functions have been largely eliminated from the landscape, accelerating the transport of flows from higher to lower areas of the watersheds.

Figure 3.8-8 presents a comparison of the predevelopment and development conditions and impacts to hydrology. The effect that is shown in Figure 3.8-8 to the hydrograph from urbanization is called hydromodification. Hydromodification reduces base-flow (groundwater flow into streams) and increases peak discharge rates into streams and rivers. Figure 3.8-8 also shows the effect of the hydrograph when BMPs such as retention basin are implemented that capture urbanized storm flows and release these flows under reduced flows to return the hydrograph close to predevelopment conditions.

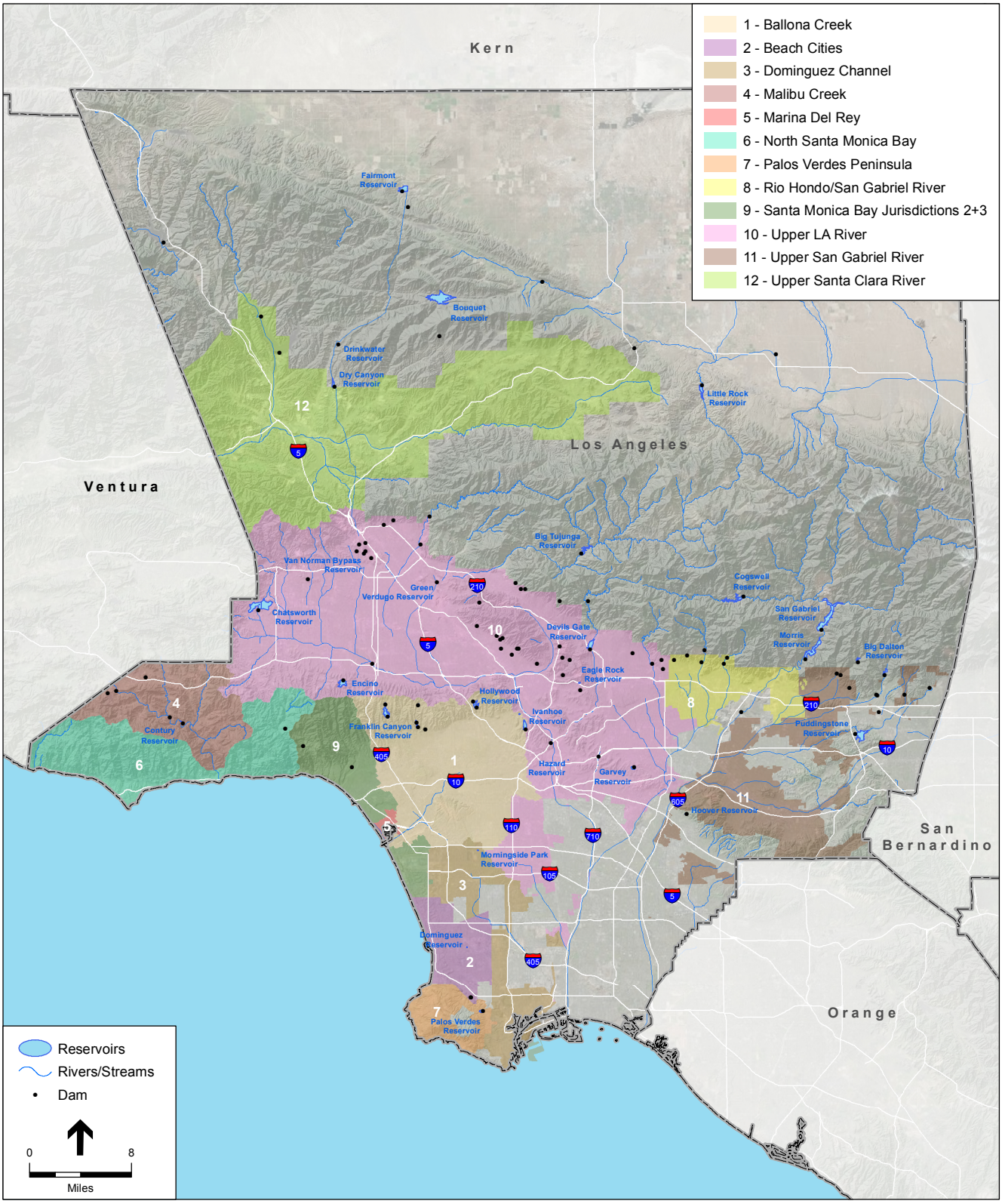


LA County PEIR EWMP . 140474

Figure 3.8-8
Effect of Urbanization on an Example Stream Hydrograph and Hydrograph after Implementation of Retention-Type BMP

In addition, urbanization can increase dry-weather flows in local streams that were historically ephemeral as a result of irrigation runoff and wastewater treatment plant discharges. Naturally occurring dry-weather flows in the San Gabriel River and Los Angeles River are also influenced by the management of upstream dams and reservoirs that impound flows from winter storm events and then distribute these flows to recharge basins and to treatment facilities as part of the water supply system. These flows are managed through periodic dam releases and downstream intake systems. **Figure 3.8-9** provides the locations of dams and reservoirs in the Los Angeles region.

Urban dry-weather flows from causes such as over-irrigation result in dry-weather flows in creeks and streams that historically are ephemeral.



SOURCE: ESRI; Los Angeles County GIS

LA County PEIR EWMP . 140474

Figure 3.8-9

System of Dams and Reservoirs in LA Basin

In the late 1990s, some Permittees along the Santa Monica Bay coast began to implement LFDs, which divert dry season flows from storm drains into the sanitary sewer system for treatment and disposal or reuse. Over 20 LFDs are currently in use within Los Angeles County; though most are along the SMB shorelineThe location of existing low flow diversions along the Santa Monica Bay coastline are shown on Figure 3.8-10. . Collectively, these LFDs divert a large volume of polluted urban runoff during each dry season, and they have proven to be one of the most effective tools for improving coastal water quality (LA Stormwater, 2014). The EWMPs include a suite of new LFDs and improvements to existing LFDs that will further increase the volume of dry-weather (and, in some cases, year-round) flows diverted for treatment. The installation/upgrades of these LFDs could potentially increase the amount of water available for recycling, reuse, and groundwater recharge.

Surface Water Quality

Surface water quality in Los Angeles is largely influenced by the intensive urban land uses of the region. Key sources of surface water contamination include landscape irrigation runoff conveying sediment, nutrients, pesticides, metals, oil and grease, and pathogens to receiving waters. Other dry-weather runoff from industrial activities can add organic compounds and petroleum hydrocarbons. The State Water Resources Control Board (SWRCB) has identified stream segments in each of the EWMP Areas that are considered impaired under the Clean Water Act (CWA) in the State Section 303d list. **Table 3.8-1** lists the major streams on the Section 303d list within the EWMP areas. A water body is placed on the State §303d list when the receiving water does not meet applicable water quality standards listed in the Basin Plan and determined not to be supporting the beneficial uses associated with the applicable water quality standard. Once placed on the State §303d list, the water body or segment is then subject to the development of a TMDL. Appendix F provides a list of the current TMDLs and the references to existing TMDL Implementation Plans.

TABLE 3.8-1
MAJOR IMPAIRED WATER BODIES IN THE STUDY AREA

Water Body/Reach Name	Pollutant/Stressor	Potential Source
Ballona Creek	Cadmium, Coliform Bacteria, Copper (dissolved), Cyanide, Lead, Selenium, Toxicity, Trash, Viruses (enteric), and Zinc	Unspecified or unknown point and nonpoint sources.
Dominguez Channel (lined portion above Vermont Avenue)	Ammonia, Copper, Diazinon, Indicator Bacteria, Lead, Toxicity, and Zinc	Unspecified or unknown point and nonpoint sources.
Dominguez Channel (unlined portion below Vermont Avenue)	Ammonia, Benthic Community Effects, Benzo(a)pyrene (3,4-Benzopyrene -7-d), Benzo[a]anthracene, Chlordane (tissue), Chrysene (C1-C4),Coliform Bacteria, DDT (tissue & sediment), Dieldrin (tissue), Lead (tissue), PCBs (Polychlorinated biphenyls), Phenanthrene, Pyrene, Sediment Toxicity, Zinc (sediment)	Unspecified or unknown point and nonpoint sources.
Los Angeles River (Reaches 1-6)	Ammonia, Cadmium, Coliform Bacteria, Copper (dissolved), Cyanide, Diazinon, Lead, Nutrients (algae), Oil, Trash, Zinc (dissolved), pH, and Selenium.	Urban Runoff, Unspecified or unknown point and nonpoint sources.

Water Body/Reach Name	Pollutant/Stressor	Potential Source
Malibu Creek	Benthic-Macroinvertabrate Bioassessments, Coliform Bacteria, Fish Barriers, Invasive Species, Nutrients (algae),Scum/Foam-unnatural, Sedimentation/Siltation, Selenium, Sulfates, Trash.	Urban Runoff, Unspecified or unknown point and nonpoint sources, Hydromodification, Waste Storage And Disposal, Recreation Areas And Activities, Groundwater Related, Atmospheric Deposition, Municipal Wastewater, and Agriculture
Rio Hondo (Reaches 1 and 2)	Coliform Bacteria, Copper, Lead, Toxicity, Trash, Zinc, pH, Cyanide	Urban Runoff, Unspecified or unknown point and nonpoint sources.
San Gabriel River (Reaches 1-3 and East Fork)	Coliform Bacteria, pH, Cyanide, Lead, Indicator Bacteria, Trash	Urban Runoff, Unspecified or unknown point and nonpoint sources
Santa Clara River (Reaches 1, 3, 5, 6, 7, and 11)	Toxicity, Ammonia, Chloride, Total Dissolved Solids (TDS), Coliform Bacteria, Iron, Chlorpyrifos, Copper, Diazinon, Boron, Specific Conductance, Sulfates.	

SOURCE: RWQCB, 2014. Available online at: http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml

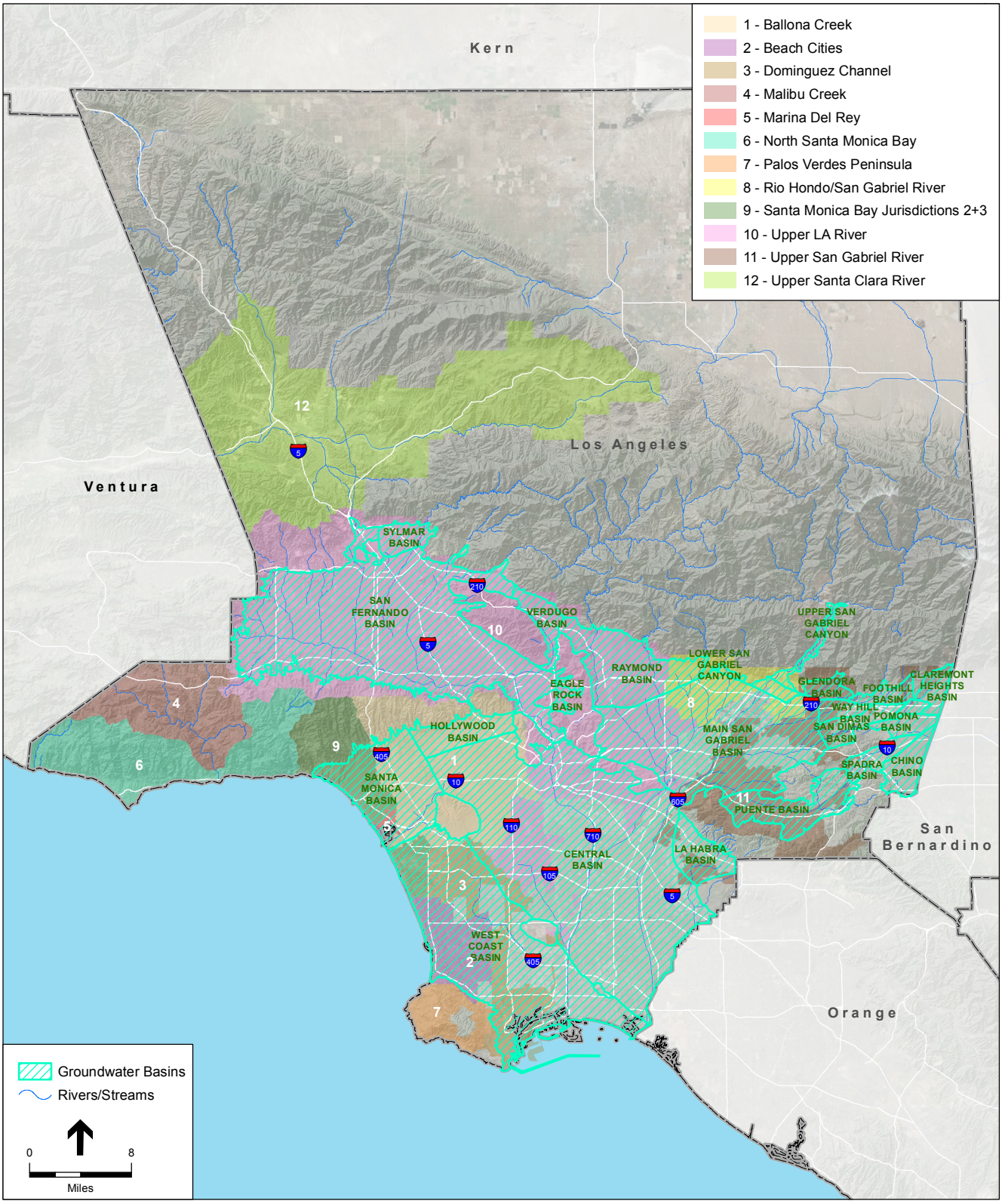
Existing Stormwater Recharge

In Southern California's arid climate, stormwater is increasingly viewed as a critical component of the region's water supply. The nexus between stormwater and groundwater has been recognized since the early 20th century, when groundwater recharge facilities began to be constructed along the San Gabriel River and other basins (see Groundwater, below). According to the Metropolitan Water District, approximately 55 percent of water supplies in Southern California are imported; 45 percent are supplied by local groundwater basins that are recharged naturally from rainfall and through constructed recharge facilities (MWD, 2010). As described further in this section, stormwater recharge facilities currently augment local groundwater supplies in the region by an estimated 477,000 acre-feet per year (MWD, 2014). One of the primary goals of the EWMP program is to increase the amount of stormwater that is recharged into groundwater, particularly in portions of the Central Basin that experience a high degree of hydraulic connectivity between surface water and groundwater. Infiltration BMPs proposed within the EWMPs are expected to increase the rates and amounts of groundwater recharge—the degree to which these increase is dependent upon project-specific attributes such as size, location, and the size of the contributing watershed.

Groundwater

Groundwater Basins

Los Angeles County is located in the South Coast Hydrologic Region (HR), as described by the Department of Water Resources Groundwater Bulletin 118 (2003). The South Coast HR is divided into numerous smaller groundwater basins and subbasins; the two largest and most critical among them are the Central Basin and the West Coast Basin. **Figure 3.8-10** displays the boundaries of these basins.



SOURCE: ESRI; Los Angeles County GIS

LA County PEIR EWMP . 140474

Figure 3.8-10

Groundwater Basins within the EWMP Areas

The 140-square-mile West Coast Basin underlies much of the Beach Cities, Dominguez Channel, and Marina del Rey EWMP Areas. The 270-square-mile Central Basin underlies portions of the Los Angeles River, Upper San Gabriel, and SGR/Rio Hondo EWMP areas. The Central and West Coast Basins are characterized by aquifers that are generally confined by relatively impermeable clay layers over most of the area (DWR, 1961), with the exception of the Montebello and Los Angeles Forebays in the Central Basin.

Groundwater generally flows from east to west across the Main San Gabriel Basin, then southward into the Central Basin through the Montebello Forebay. Within all groundwater basins, groundwater flow directions are generally controlled by engineered recharge operations and groundwater pumping from the hundreds of wells distributed across the area (Shelton et al., 2001; Dawson et al., 2003). Stormwater recharge facilities currently augment local groundwater supplies in the region by an estimated 477,000 acre-feet per year (MWD, 2014). Due to the pumping depressions that exist in the Central and West Coast Basins, very little groundwater discharges or leaves the basins as subsurface outflow.

Recharge to the Central Basin occurs primarily by engineered recharge of stormwater, imported water, and reclaimed water along the upper reaches of the San Gabriel River and the Rio Hondo via the San Gabriel River Water Conservation System. This system is a series of dams, spreading grounds and instream recharge systems that facilitate groundwater recharge into the Main San Gabriel Basin and Montebello Forebay of the Central Basin. The system is comprised of four dams (Cogswell, San Gabriel, Morris, and Santa Fe) and three spreading grounds (San Gabriel Canyon, Sante Fe, and San Gabriel) on the San Gabriel River, as well as inflatable dams meant to pond water along the river's unlined stretch of the river. The system also includes one dam (Whittier Narrows) – and one spreading ground (Rio Hondo) along the Rio Hondo. Collectively, the Rio Hondo and San Gabriel River spreading grounds are referred to as the Montebello Forebay Spreading Grounds, or MFSG. Recycled water has been also delivered for recharge in the Montebello Forebay since 1962. Finally, the Central Basin includes one seawater intrusion barrier, the Alamitos Gap Seawater Intrusion Barrier (AGB), fed by treated imported water along with advanced water treatment recycled water.

Recharge to the West Coast Basin occurs primarily by injection of imported water and reclaimed water into wells of the seawater intrusion barrier and by underflow from the Central Basin. The Dominguez Channel Spreading Grounds (DGSG) are located along the Los Angeles River near the boundary between the West Coast and Central Basins. The sources of water for the spreading grounds are controlled flows from the Los Angeles River low-flow channel and uncontrolled flows from storm drains. The West Coast Basin includes two seawater intrusion barriers, the West Coast Basin Seawater Intrusion Barrier (WCBB) and Dominguez Gap Seawater Intrusion Barrier, also fed by treated imported water and advanced water treatment recycled water.

The EWMP areas overlie various groundwater basins as summarized in **Table 3.8-2**, most of which are adjudicated and managed by court-stipulated Watermasters. The Watermasters monitor groundwater production and participate in groundwater remediation programs.

TABLE 3.8-2
GROUNDWATER BASINS WITHIN THE EWMP AREAS

EWMP	Groundwater Basin	Adjudicated?	Watermaster
Ballona Creek	Santa Monica Basin	No	None
	Hollywood Basin	No	None
	Central Basin	Yes	CB
Beach Cities	West Coast Basin	Yes	WCB
Dominguez Channel	West Coast Basin	Yes	WCB
Malibu Creek	None	No	None
Marina Del Rey	Santa Monica Basin	No	None
North Santa Monica Bay	None	No	None
Palos Verdes Peninsula	None	No	None
San Gabriel and Rio Hondo	Main San Gabriel Basin	Yes	MSGB
Santa Monica Bay	Santa Monica Basin	No	None
	West Coast Basin	Yes	WCB
Upper Los Angeles River	San Fernando Basin	Yes	ULARA
	Main San Gabriel Basin	Yes	MSGB
	Central Basin	Yes	CB
Upper San Gabriel	Upper San Gabriel	Yes	MSGB
Upper Santa Clara River	East Subbasin	No	None

WCB – West Coast Basin Watermaster
CB – Central Basin Watermaster
MSGB – Main San Gabriel Basin Watermaster
ULARA – Upper Los Angeles River Area Watermaster

SOURCE: DWR, Bulletin 118

Groundwater Quality

In general, groundwater in the main producing aquifers of the West Coast and Central basins is of good quality. Localized areas of marginal to poor quality water exist, primarily at the basin margins where seawater intrusion occurred in the past and also in mostly shallow groundwater near environmental release sites. Groundwater has also been impacted by industrial activities that have introduced highly mobile man-made organic compounds such as solvents and fuel additives. These contaminated groundwater plumes are well documented. Areas of these contaminant plumes are designated to restrict recharge activities that may create an increased driver for contaminant migration.

Between the 1900s and 1950s, groundwater was an important factor in urbanization of the West Coast and Central basins. Excessive overpumping in the basins caused severe overdraft (i.e., lowered groundwater levels) and created a hydraulic gradient that resulted in seawater intrusion, which contaminated the coastal groundwater aquifers. To address this problem and halt the intrusion, three seawater intrusion barriers were constructed (discussed previously). While the water injection activities at the barriers were successful in halting further seawater intrusion, these efforts could not address the seawater that had already intruded into the Central and West Coast Basins before the barriers were constructed. These large plumes of saline water, referred to as "saline plumes," are trapped inland of the injection wells, thereby degrading significant volumes

of groundwater with high concentrations of chloride and total dissolved solids (TDS) and decreasing the ability of affected aquifers to provide groundwater storage.

Groundwater quality in the Central and West Coast Basins also reflects current and historical land uses. As a highly urban area, commercial and industrial activities have resulted in contamination due to leaking aboveground and underground storage tanks, leaking sewer and oil pipelines, spills, and illegal discharges. Many groundwater contamination plumes consist of priority contaminants such as petroleum fuels and additives (e.g., methyl tert-butyl ether), solvents (e.g., trichloroethylene and perchloroethylene), herbicides (e.g., atrazine, simazine, prometon), and other hazardous/toxic substances (e.g., arsenic, perchlorate). Groundwater contamination within the central, West Coast, and adjacent basins is discussed in depth in the California Groundwater Ambient Monitoring and Assessment's 2012 summary report (USGS and SWRCB, 2012). In general, contaminated plumes are typically found in shallow groundwater. However, as the aquifers and confining layers in these alluvial basins are typically interfingered,[1] the quality of groundwater in the deeper production aquifers is threatened by the migration of pollutants from the upper aquifers.

3.8.2 Regulatory Setting

Federal

Clean Water Act

The Federal Water Pollution Control Act (33 U.S.C. 1251 et. sec.) as amended by the Federal Water Pollution Control Act Amendments of 1972, also known as the CWA, states that the discharge of pollutants to waters of the United States from any point source is unlawful, unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. Amendments to the CWA added a section that established a framework for regulating municipal and industrial (M&I) stormwater discharges under the NPDES program. On November 16, 1990, the U.S. Environmental Protection Agency (USEPA) published final regulations, under the 1987 CWA Amendments, that establish application requirements for stormwater permits.

Clean Water Act Section 402

CWA Section 402 regulates discharges to surface waters of the United States through the NPDES program. In California, the USEPA authorizes the SWRCB to oversee the NPDES program through the Regional Water Quality Control Boards (RWQCBs). In September 2004, the RWQCB adopted Time Schedule Order No. R8-2004-0067, which requires the Sanitation District to achieve full secondary treatment by December 31, 2012. The Sanitation District has since carried out improvement projects of existing facilities and constructed new facilities to achieve secondary treatment standards by the year 2012 (RWQCB, 2004).

Stormwater discharges are also regulated under CWA Section 402.Construction activities disturbing one acre of land or greater must be covered under the SWRCB General Construction Activity Stormwater Permit. The permit requires preparation of a Stormwater Pollution

[1] Interfinger means to grade or pass from one material (typically fine-grained) into another (typically coarse-grained) through a series of interpenetrating wedge-shaped layers. This can result in hydraulic connection between fine and coarse grounded layers.

Prevention Plan (SWPPP) for construction activities. A SWPPP prepared in compliance with the General Permit describes the site, erosion and sediment controls, runoff water quality monitoring, means of waste disposal, implementation of approved local plans, control of post-construction sediment and erosion control measures and maintenance responsibilities, and non-stormwater management controls. Dischargers are also required to inspect construction sites before and after storms to identify stormwater discharge from construction activity, and to identify and implement controls where necessary.

Clean Water Act Section 303(d)

Section 303(d) of the CWA requires that each state identify water bodies or segments of water bodies that are "impaired" (i.e., do not meet one or more of the water quality standards established by the state). These waters are identified in the Section 303(d) list as waters that are polluted and need further attention to support their beneficial uses. Once the water body or segment is listed, the state is required to establish TMDL for the pollutant. A TMDL is the maximum amount of a pollutant that a water body can receive and still meet the water quality standards. Typically, TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. On October 11, 2011, the USEPA approved a revised list of water quality limited segments (herein referred to as the 303(d) list) prepared by the RWQCB for California's 2008 through 2010. Table 3.8-1 summarizes the main impaired water bodies within the study area that are included on the RWQCB 2008 CWA Section 303(d) list that was revised on July 7, 2009.

Clean Water Act Section 401

Section 401 of the federal CWA requires that any activity, including the crossing of rivers or streams during road, pipeline, or transmission line construction, that might result in discharges of dredged or fill material into a state water body, be certified by the RWQCB. This certification ensures that the proposed activity does not violate state or federal water quality standards.

Clean Water Act Section 404

Wetlands are generally considered to be areas that are periodically or permanently inundated by surface water or groundwater, and support vegetation adapted to life in saturated soil. Wetlands are recognized as important features on a regional and national level due to their high inherent value to fish and wildlife, use as storage areas for storm and floodwaters, and water recharge, filtration, and purification functions. Technical standards for delineating wetlands have been developed by the ACOE which generally defines wetlands through consideration of three criteria: hydrology, soils, and vegetation. Under Section 404 of the CWA, the ACOE is responsible for regulating the discharge of dredged or fill material into waters of the United States. The term "waters of the United States" includes wetlands and non-wetland bodies of water that meet specific criteria as defined in the Code of Federal Regulations.

State

Porter-Cologne Water Quality Act

The Porter-Cologne Act (Division 7 of the California Water Code) provides the basis for water quality regulation within California and defines water quality objectives as the limits or levels of

water constituents that are established for reasonable protection of beneficial uses. The SWRCB administers water rights, water pollution control, and water quality functions throughout the State, while the RWQCB conducts planning, permitting, and enforcement activities. The Porter-Cologne Act requires the RWQCB to establish water quality objectives, while acknowledging that water quality may be changed to some degree without unreasonably affecting beneficial uses. Beneficial uses, together with the corresponding water quality objectives, are defined as standards, per Federal regulations. Therefore, the regional plans form the regulatory standards for meeting State and federal requirements for water quality control. Changes in water quality are only allowed if the change is consistent with the maximum beneficial use designated by the State, does not unreasonably affect the present or anticipated beneficial uses, and does not result in water quality less than that prescribed in the water quality control plans.

California Ocean Plan

The SWRCB regulates water quality in the Pacific Ocean through regulatory standards and objectives outlined in the *Water Quality Control Plan, Ocean Waters of California* (commonly referred to the Ocean Plan) (SWRCB, 2012). The Ocean Plan identifies beneficial uses of ocean waters and provides water quality objectives that are protective of these uses. The plan provides objectives for bacteriological, physical, chemical, biological, and radioactive characteristics, as well as general requirements for the management of waste discharges to the Pacific Ocean. The USEPA relies upon the water quality objectives of the Ocean Plan for the purposes of regulating discharges from point sources that discharge into the Pacific (e.g. WWTP ocean outfalls) as well as the water quality of streams and channels that flow into the ocean.

In 1974, the SWRCB designated 34 regions along the coast of California as Areas of Special Biological Significance (ASBS) under Resolution Number 74-28 (SWRCB, 1974a). These ASBS are “areas designated by the SWRCB as ocean areas requiring protection of species or biological communities to the extent that alteration of natural water quality is undesirable” (SWRCB, 2012b). A portion of the Pacific off of the North Santa Monica Bay coastline from Laguna Point to Latigo Point offshore is designated as ASBS 24.

In March 2012, the SWRCB adopted the General Exception (SWRCB, 2012b), which exempts certain listed dischargers. The conditions in the General Exception are designed to protect beneficial uses of the receiving water, yet allow continuation of essential public services, such as flood control, slope stability, erosion prevention, maintenance of the natural hydrologic relationship between terrestrial and marine ecosystems, public health and safety, public recreation and coastal access, commercial and recreational fishing, navigation, and essential military operations (national security) (SWRCB, 2012b).

The General Exception designates the LACFCD, the City of Malibu and the California Department of Transportation (Caltrans) as dischargers to ASBS 24, and the California The General Exception authorizes these dischargers to discharge into ASBS 24, provided that it:

- Complies with the NPDES MS4 Permit.

- Includes an ASBS Compliance Plan that shall be included as part of the Permittees' primary policy, planning, and implementation documents for municipal NPDES Stormwater Permit compliance.

Proposed Trash Amendments to California Ocean Plan

The SWRCB has proposed to amend the California Ocean Plan and the forthcoming Inland Surface Waters, Enclosed Bays, and Estuaries Plan to address trash in waterways, including waterways regulated by the Los Angeles County MS4 (SWRCB, 2014). The proposed Trash Amendments would be incorporated into the MS4 Permit and:

- Establish a narrative water quality objective for trash.
- Establish a prohibition of discharge of trash.
- Provide implementation requirements for permitted stormwater dischargers and other discharges.
- Set a time schedule for compliance.
- Provide a framework for monitoring and reporting requirements.

A central element of the proposed Trash Amendments is a compliance approach that utilizes land use to target high trash generating areas (priority land uses), such as high-density residential, industrial, and commercial, mixed urban, and public transportation land uses. Within this land use- based approach, the SWRCB proposes two alternative compliance tracks (i.e., the Permittee must choose to comply with one of the tracks). Under Track 1, a Permittee could elect to install a network of full capture systems in the storm drains located in priority land uses for MS4s and the entire facility for IGP/CGP. Under Track 2, a Permittee could use any combination of controls (structural and/or institutional), as long as they can demonstrate that the combination of controls performs as well as Track 1. The SWRCB can extend this deadline by up to three years if Permittees implement regulatory source controls, such as product bans.

National Pollutant Discharge Elimination Program

The NPDES permit program is administered in the State of California by the RWQCBs, and was first established under the authority of the CWA to control water pollution by regulating point sources that discharge pollutants into waters of the United States. If discharges from industrial, municipal, and other facilities go directly to surface waters, those project applicants must obtain permits. An individual NPDES permit is specifically tailored to a facility. A general NPDES permit covers multiple facilities within a specific activity category such as construction activities. A general permit applies with same or similar conditions to all dischargers covered under the general permit.

General Dewatering Permit

The SWRCB also has issued General Waste Discharge Requirements (WDRs) under Order No. R8-2003-0061, NPDES No. CAG 998001 (Dewatering General Permit) governing non-stormwater construction-related discharges from activities such as dewatering, water line testing, and sprinkler system testing. The discharge requirements include provisions mandating notification, testing, and reporting of dewatering and testing-related discharges. The General

WDRs authorize such construction-related discharges so long as all conditions of the permit are fulfilled.

Construction General Permit

The Construction General Permit (CGP) requires the development and implementation of an SWPPP that includes specific BMPs designed to prevent pollutants from contacting stormwater and keep all products of erosion from moving off-site into receiving waters. The SWPPP BMPs are intended to protect surface water quality by preventing the off-site migration of eroded soil and construction-related pollutants from the construction area. Routine inspection of all BMPs is required under the provisions of the CGP. In addition, the SWPPP is required to contain a visual monitoring program, a chemical monitoring program for nonvisible pollutants, and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

In the project area, the CGP is implemented and enforced by the Los Angeles Regional Water Quality Control Board (LARWQCB), which administers the stormwater permitting program. Dischargers are required to electronically submit a Notice of Intent (NOI) and permit registration documents (PRDs) to obtain coverage under this CGP. Dischargers are responsible for notifying the LARWQCB of violations or incidents of noncompliance, as well as for submitting annual reports identifying deficiencies of the BMPs and how the deficiencies were corrected.

Municipal Stormwater Permitting (MS4)

The State's Municipal Stormwater Permitting Program regulates stormwater discharges from Municipal Separate Storm Sewer Systems (MS4s). MS4 Permits were issued in two phases. Phase I was initiated in 1990, under which the RWQCBs adopted NPDES stormwater permits for medium (serving between 100,000 and 250,000 people) and large (serving more than 250,000 people) municipalities. As part of the Phase II, the SWRCB adopted a General Permit for small MS4s (serving less than 100,000 people) and non-traditional small MS4s including governmental facilities such as military bases, public campuses, and hospital complexes.

The Permittees' 2012 MS4 Permit (Order No. R4-2012-0175; NPDES Permit No. CAS004001) requires Permittees to develop Enhanced Watershed Management Plans to ensure they are not causing or contributing to exceedances of water quality objectives or impairments of beneficial uses in the receiving waters of the Los Angeles region. The EWMPs are the subject of this PEIR.

Local Regulations

Los Angeles Regional Water Quality Control Plan

The preparation and adoption of water quality control plans (Basin Plans) is required by the California Water Code (Section 13240) and supported by the CWA. Section 303 of the CWA requires states to adopt water quality standards which "consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses." According to Section 13050 of the California Water Code, Basin Plans consist of a designation or establishment for the waters within a specified area of beneficial uses to be protected, water quality objectives to protect those uses, and a program of implementation needed for achieving the objectives. Because beneficial uses, together with their corresponding water quality objectives, can

be defined per Federal regulations as water quality standards, the Basin Plans are regulatory references for meeting the State and Federal requirements for water quality control. Beneficial uses for water bodies in the EWMP Areas are summarized in Appendix F.

County of Los Angeles Stormwater Pollution Control Requirements for Construction Activities

To comply with the Phase II General Construction Permit, the County of LA has established a set of BMPs with which all permitted construction activities on unincorporated county lands must comply. The BMPs, which are based on the state's Stormwater Best Management Practices Handbook (2003), are as follows:

- Eroded sediments and other pollutants must be retained on site and may not be transported from the site via sheetflow, swales, area drains, natural drainage courses or wind.
- Stockpiles of earth and other construction related materials must be protected from being transported from the site by the forces of wind or water.
- Fuels, oils, solvents and other toxic materials must be stored in accordance with their listing and are not to contaminate the soil and surface waters. All approved storage containers are to be protected from the weather. Spills must be cleaned up immediately and disposed of in a proper manner. Spills may not be washed into the drainage system.
- Non-stormwater runoff from equipment and vehicle washing and any other activity shall be contained at the project site.
- Excess or waste concrete may not be washed into the public way or any other drainage system. Provisions shall be made to retain concrete wastes on site until they can be disposed of as solid waste.
- Trash and construction related solid wastes must be deposited into a covered receptacle to prevent contamination of rainwater and dispersal by wind.
- Sediments and other materials may not be tracked from the site by vehicle traffic. The construction entrance roadways must be stabilized so as to inhibit sediments from being deposited into the public way. Accidental depositions must be swept up immediately and may not be washed down by rain or other means.
- Any slopes with disturbed soils or denuded of vegetation must be stabilized so as to inhibit erosion by wind and water.

The Los Angeles County Department of Public Works may identify and require additional BMPs, as appropriate.

City of Los Angeles Development Construction Model Program

The City of LA's Development Construction Model Program addresses NPDES Phase II requirements on construction sites within incorporated City lands. BMPs for construction (as well as source control and treatment) are detailed in the City's Reference Guide for Stormwater Best Practices (LADPW, 2000). The BMPs are consistent with those developed by the state and

county, and include erosion and sedimentation control measures, site management practices, materials and waste management, and general preventive maintenance and inspection.

Stormwater Pollution Control Requirements for Other Cities in the County of Los Angeles

Other cities within the County also have stormwater pollution control requirements and associated BMPs; their content is similar to those described in this section for the County and City of Los Angeles.

County of Los Angeles Low Impact Development Manual

The County of Los Angeles (County) prepared the 2014 Low Impact Development Standards Manual (LID Standards Manual, County of Los Angeles, 2014b) to comply with the requirements of the 2012 MS4 Permit. The LID Standards Manual provides guidance for the implementation of stormwater quality control measures in new development and redevelopment projects in unincorporated areas of the County with the intention of improving water quality and mitigating potential water quality impacts from stormwater and non-stormwater discharges.

The LID Standards Manual addresses the following objectives and goals:

- Lessen the adverse impacts of stormwater runoff from development and urban runoff on natural drainage systems, receiving waters, and other water bodies.
- Minimize pollutant loadings from impervious surfaces by requiring development projects to incorporate properly-designed, technically-appropriate BMPs and other LID strategies.
- Minimize erosion and other hydrologic impacts on natural drainage systems by requiring development projects to incorporate properly-designed, technically appropriate hydromodification control development principles and technologies.

City of Los Angeles Low Impact Development Manual

In November 2011, the City of Los Angeles adopted the Stormwater Low Impact Development Ordinance #181899 with the stated purpose of:

- Requiring the use of LID standards and practices in future developments and redevelopments to encourage the beneficial use of rainwater and urban runoff
- Reducing stormwater/urban runoff while improving water quality
- Promoting rainwater harvesting
- Reducing off-site runoff and providing increased groundwater recharge
- Reducing erosion and hydrologic impacts downstream
- Enhancing the recreational and aesthetic values in our communities

The City of Los Angeles institutionalized the use of LID techniques for development and redevelopment projects. Subsequent to the adoption of the Stormwater LID Ordinance, the City prepared the *Development Best Management Practices Handbook, Low Impact Development Manual,* dated June 2011, to describes the required BMPs (City of Los Angeles, 2011).

Low Impact Development Manuals for Other Cities in the County of Los Angeles

Some of the other cities within the County also have LID ordinances and manuals. Their content is similar to the LID manuals described in this section for the County and City of Los Angeles.

City General Plans

The numerous cities encompassed by the EWMP project area all have their own respective city General Plans, some of which may contain policies that address water quality and hydrology. As implementation of the individual structural BMP projects proceed, specific policies and objectives pertaining to water quality and hydrology from applicable city General Plans will be identified and evaluated on a project-by-project basis during subsequent California Environmental Quality Act (CEQA) environmental processes.

3.8.3 Impact Analysis

The proposed project's potential impacts were assessed using the California Environmental Quality Act (CEQA) Guidelines Appendix G Checklist. The following sections discuss the key issue areas identified in the CEQA Guidelines with respect to the project's potential hydrology and water quality impacts.

Thresholds of Significance

For the purposes of this PEIR and consistency with Appendix G of the CEQA Guidelines, applicable local plans, and agency and professional standards, the project would have a significant impact on aesthetic resources if it would:

- Violate any water quality standards or waste discharge requirements.
- Otherwise substantially degrade water quality.
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).
- Substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river, or by other means, in a manner that would result in substantial erosion or siltation on- or off-site.
- Substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river or, by other means, substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site.
- Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

- Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other authoritative flood hazard delineation map.
- Place within a 100-year flood hazard area structures that would impede or redirect flood flows.
- Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.
- Expose people or structures to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow.

Program Impact Discussion

Water Quality Standards, Waste Discharge Requirements, and Further Degradation of Water Quality

Impact 3.8-1: The proposed project would violate water quality standards or waste discharge requirements or further degrade water quality.

Structural (Regional, Centralized, and Distributed) BMPs

Construction

Construction, demolition, and renovation activities associated with the installation of some BMPs, particularly larger centralized and regional BMPs, could lead to ground disturbance and polluted runoff. However, as described above, the NPDES CGP requires that any actions that disturb an acre or more of ground must develop an SWPPP to prevent the transport of polluted runoff. SWPPPs will most likely be necessary for the construction of regional and centralized BMPs, particularly those that are larger, multi-benefit projects such as greenway redevelopments. Projects under an acre in size, which will include most distributed BMPs, must comply with NPDES Phase II requirements and incorporate construction BMPs mandated by the jurisdiction within which the project falls. Compliance with the CGP would ensure that the construction of BMPs would have no temporary or permanent impact to water quality.

Operation

The structural BMPs are designed to reduce the transport of pollutants in stormwater, thereby helping Permittees improve water quality. The EWMP structural BMPs that have stormwater retention and infiltration as a function are designed to reverse the impacts from urbanization on the natural hydrograph and water quality. The widespread implementation of distributed BMPs with these functions in urban areas of all the EWMP groups will significantly reduce stormwater flow volumes and pollutant loading to creeks and rivers. The increased infiltration of stormwater from the widespread implementation of these projects will have the effect of increasing recharge to the groundwater, reducing peak storm flows and altering the hydrograph toward more natural conditions. By retaining stormwater flows and either infiltrating or releasing these flows closer to the natural conditions, the stream hydrographs will be less impacted by the urbanization. The increase in infiltration of stormwater from these BMPs will also raise groundwater levels and increase groundwater seepage to creeks and rivers following storm events. Runoff reduction measures and LFDs under the EWMP will significantly reduce dry-weather “nuisance” flows that have altered formerly ephemeral systems to perennial creeks and streams.

Distributed BMPs, although on a smaller parcel or site scale, would also be designed to collect and treat stormwater to reduce the loading of the smaller amounts of contaminants transported by their relatively smaller receiving areas. This would reduce contaminant loading to receiving waters compared with existing conditions while capturing contaminants in filter media. The vegetation and microbial activity in soil would work to biodegrade the typical fuels, oil, and grease in local urban runoff.

As discussed in the Project Description (Section 2.0), the identification of water quality priorities is required in Section VI.C.5.a of the MS4 permit as part of EWMP development. Appendix F provides a listing of the water quality priorities for each EWMP. As highlighted in this prioritization process, pollutants under a TMDL have higher priority and will be addressed under the timelines defined in the TMDLs. This highlights that the EWMP is a continuation of water quality improvement efforts by the Permittees under existing TMDLs through adopted TMDL Implementation Plans. BMP types that are assessed in this PEIR therefore include BMPs under various stages of implementation and planning to meet TMDL waste load allocations.

Once constructed, the structural BMPs would provide source control treatment of stormwater runoff prior to discharge to receiving waters whether on a site-specific (distributed structural BMPs), local (centralized structural BMPs), or regional (regional structural BMPs) basis. These structural BMPs would provide improved water quality through infiltration and treatment (e.g., filtration, settling, sedimentation, sorption, straining, and biological or chemical transformations) that would minimize the off-site transport of typical urban runoff pollutants. Implementation of the proposed BMPs would have no adverse impacts to surface water quality.

Mitigation Measures: None required

Significance Determination: Less than significant impact

Non-Structural (Institutional) BMPs

Non-structural BMPs policies, actions, and activities intended to prevent pollutants from entering stormwater runoff, thus eliminating the source of the pollutants. These BMPs would not involve any earthwork disturbance or construction activities, and similar to the Structural BMPs, once implemented, would aid in minimizing off-site discharge of urban runoff pollutants. As a result, they would have no adverse impact on water quality standards or waste discharge requirements.

Mitigation Measures: None required

Significance Determination: No impact

Groundwater

Impact 3.8-2: The proposed project would result in higher groundwater levels and could potentially affect groundwater quality.

Structural (Regional, Centralized, and Distributed) BMPs

Water Levels

Regional BMPs would recharge stormwater into the groundwater basin and could raise local groundwater levels following major storm events. Distributed infiltration BMPs would typically be too small to have a measureable effect on local groundwater levels. Groundwater basins in southern Los Angeles County are adjudicated and managed for beneficial uses. Increased capture of stormwater is a key element to integrated water supply planning in Southern California. The increased water supplies captured by the infiltration basins through the EWMP areas would be a beneficial impact of the projects.

In areas with shallow groundwater tables or impermeable soils, recharge could result in mounding that affects subsurface infrastructure such as building or bridge foundations. This would be a potential impact of regional BMPs that recharge large volumes of captured stormwater, but could also occur for distributed BMPs in areas with limited permeability. For example, the EWMP Areas of Malibu Creek, Northern Santa Monica Bay, and Palos Verdes are located in areas where no significant groundwater basin occurs. In addition, the West Coast Basin consists of a series of aquitards near the surface that prevent surface water percolation into the productive aquifers. Infiltration BMPs in these areas would result in shallow infiltration followed by lateral movement and seepage to nearby areas that could include creek cuts, areas of lower elevation, or basements and underground vaults. **Mitigation Measure HYDRO-1** requires Permittees to evaluate the suitability of BMP locations for groundwater recharge. Infiltration BMPs would not be suitable in areas of low permeability where subsurface structures could be adversely affected by groundwater mounding.

Groundwater Quality

Infiltration of stormwater runoff could increase contaminant loading in shallow soils and groundwater. Some contaminants found in stormwater runoff (e.g., oil, grease, metals) adsorb onto surficial soils and remain within a few feet of the surface, while other more soluble contaminants (e.g., fuels, nitrate, phosphate) may be entrained to deeper soils or migrate all the way to the groundwater. Over a long period of time, concentrations of these contaminants could increase resulting in contaminated soils and groundwater. Pre-treatment of source water in areas with the potential for heavy contaminant loading would be implemented as a required design feature for regional and centralized BMPs to assist in reducing long-term loading. In addition, non-structural source control BMPs would help reduce contaminant loading over time. The LID standards for the County of Los Angeles and the various cities participating in the EWMP provide protocols for designing regional and centralized BMPs that minimize the potential for contaminant loading. Compliance with these protocols and implementation of **Mitigation Measure HYDRO-2** which would require the implementing agencies to evaluate the need for pretreatment at each infiltration BMP, impacts to groundwater quality would be less than significant.

Proposed projects that recharge the shallow aquifers have the potential to mobilize shallow contamination and alter groundwater flow directions. Within the urbanized areas of the County, legacy groundwater contamination is prevalent resulting from overlying uses such as industrial operations and underground storage of fuels. A few major contamination areas have rendered the

groundwater basins unusable for potable uses. In particular, groundwater contamination plumes exist in the southeast corner of the San Fernando Groundwater Basin, the Main San Gabriel Basin, and the East Subbasin in Santa Clarita. Each of these areas are undergoing remedial actions to improve groundwater quality.

The infiltration of large volumes of water in certain areas could modify these existing contaminant plumes. If these infiltration facilities were located over contaminated groundwater plumes, groundwater flow patterns could be modified such that contaminated groundwater migrates into areas that are not currently contaminated or pushed away from existing treatment systems. **Mitigation Measure HYDRO-3** would require that infiltration BMPs would be required to evaluate site conditions and the existence of contaminated groundwater plumes during planning stages prior to construction of infiltration galleries, trenches, and basins.

Mitigation Measures:

HYDRO-1: Prior to approving an infiltration BMP, the Permittee shall conduct an evaluation of the suitability of the BMP location. Appropriate infiltration BMP sites should avoid areas with low permeability where recharge could adversely affect neighboring subsurface infrastructure.

HYDRO-2: Prior to approving an infiltration BMP, the Permittee shall identify pretreatment technologies, type, and depth of filtration media; depth to groundwater; and other design considerations necessary to prevent contaminants from impacting groundwater quality. The design shall consider stormwater quality data within the BMP's collection area to assess the need and type of treatment and filtration controls. Local design manuals and ordinances requiring minimum separation distance to groundwater shall also be met as part of the design.

HYDRO-3: Prior to the installation of an infiltration BMP, the Permittee shall conduct a database review for contaminated groundwater sites within a quarter mile of the proposed infiltration facility. The Permittee shall identify whether any contaminated groundwater plumes are present and whether coordination with the local and state environmental protection overseeing agency and responsible party is warranted prior to final design of infiltration facility.

Significance Determination: Less than significant with mitigation (The application of these mitigation measures to specific BMP types and categories are identified in Table 3.8-3.)

Non-Structural (Institutional) BMPs

Non-structural BMPs policies, actions, and activities are primarily intended to prevent pollutants from entering stormwater runoff, thus eliminating the source of the pollutants. However, within Planning and Land Use Programs, there would be encouragement for implementation of LID strategies which not only improve water quality but also include on-site infiltration which can increase groundwater levels. Most non-structural institutional BMPs are implemented to meet

Minimum Control Measure (MCM) requirements in the MS4 permit. As discussed above, increased infiltration from local LID drainage features are not as likely to result in substantive increases in groundwater levels and therefore would have a less than significant impact on groundwater supplies.

Mitigation Measures: None required

Significance Determination: Less than significant

Drainage Pattern Alteration Resulting in Erosion or Siltation

Impact 3.8-3: The proposed project could substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river, or by other means, in a manner that would result in substantial erosion or siltation on- or off-site.

Structural (Regional, Centralized, and Distributed) BMPs

The proposed structural BMPs would be designed to minimize off-site discharge of urban runoff pollutants including siltation and sedimentation. Many of the structural BMPs would include on-site infiltration of stormwater runoff which would also be effective in minimizing erosion or transport of sedimentation into receiving waters. Through increased infiltration prior to discharge into receiving waters, flows within existing streams or rivers would receive reduced stormwater flow volumes thereby decreasing flow energies. As a result, the potential for erosion or siltation within existing streams or rivers would be reduced and the potential impact less than significant.

Mitigation Measures: None required

Significance Determination: Less than significant

Non-Structural (Institutional) BMPs

Non-structural BMPs policies, actions, and activities are primarily intended to prevent pollutants from entering stormwater runoff largely through the use of drainage features that either infiltrate or detain stormwater runoff on-site. Drainage patterns would change through implementation of these non-structural institutional BMPs that are implemented to meet Minimum Control Measure (MCM) requirements in the MS4 permit. MCMs are considered a subset of institutional BMPs. These BMPs are not constructed, but within Planning and Land Use policies there would be encouragement for implementation of LID strategies which include on-site infiltration and/or detaining peak flows that would minimize off-site flows as well as the potential for erosion and off-site siltation. As discussed previously, increased infiltration from local LID drainage features minimize the potential for erosion and therefore there would be a less than significant impact related to erosion and siltation.

Mitigation Measures: None required

Significance Determination: Less than significant

Drainage Pattern Alteration Resulting in Flooding

Impact 3.8-4: The project could substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river or, by other means, substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site.

Structural (Regional, Centralized, and Distributed) BMPs

The proposed structural BMPs include features that would increase stormwater retention and encourage on-site infiltration to reverse the impacts from urbanization on the natural hydrograph. The widespread implementation of distributed BMPs with these functions in urban areas of all the EWMP groups will significantly reduce stormwater flow volumes especially during peak storm flow events as indicated by the figure shown in Impact 3.8-3. Larger retention and infiltration regional and centralized BMPs will also have a beneficial effect on regional hydrology through delayed discharge to avoid the spike in peak flows currently experienced. By retaining stormwater flows and either infiltrating or releasing these flows closer to the natural hydrograph, the change in drainage patterns would result in reduced peak flows and as a result a reduced potential for flooding on- or off-site. Therefore, the potential impact would be less than significant.

Mitigation Measures: None required

Significance Determination: Less than significant

Non-Structural (Institutional) BMPs

Non-structural BMPs policies, actions, and activities are primarily intended to prevent pollutants from entering stormwater runoff and include drainage features that infiltrate or detain stormwater runoff on-site. Drainage patterns would change through implementation of these non-structural institutional BMPs, however implementation of LID strategies which include on-site infiltration that would minimize off-site flows as well as the potential for erosion and off-site siltation. As discussed above, increased infiltration from local LID drainage features are minimize the potential for erosion and therefore would be a *less than significant impact*.

Mitigation Measures: None required

Significance Determination: Less than significant

Stormwater Drainage Systems

Impact 3.8-5: The proposed project could create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

Structural (Regional, Centralized, and Distributed) BMPs

The proposed structural BMPs whether regional, centralized or distributed would have an overall effect of reducing off-site stormwater flows through on-site infiltration and detention. As a result of having a net effect of reducing stormwater runoff volumes, there would be a less-than-significant effect on the capacity of existing or planned stormwater drainage systems. The structural BMPs would also provide improvements to water quality of receiving waters as that is the primary purpose of these BMPs and have proven effective in reducing potential sources of polluted runoff for a less than significant impact.

Mitigation Measures: None required

Significance Determination: Less than significant

Non-Structural (Institutional) BMPs

The non-structural BMPs would similarly provide the policies, actions, and activities to encourage the use of drainage features that either infiltrate or detain stormwater runoff on-site. Drainage patterns would change through implementation of these non-structural institutional BMPs but would be designed to improve water quality and reduce stormwater flow volumes. Therefore, the potential impact to the capacity of drainage systems would be less than significant as well as the potential to provide additional sources of polluted runoff.

Mitigation Measures: None required

Significance Determination: Less than significant

Flood Hazards: Housing

Impact 3.8-6: The project could place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other authoritative flood hazard delineation map.

Structural (Regional, Centralized, and Distributed) BMPs

The proposed structural BMPs would not include the construction of any housing and therefore there would be no impact related to placement of housing in a flood hazard area.

Mitigation Measures: None required

Significance Determination: No impact

Non-Structural (Institutional) BMPs

Similar to above, the non-structural BMPs would not include the construction of any housing and therefore there would be no impact related to placement of housing in a flood hazard area.

Mitigation Measures: None required

Significance Determination: No impact

Flood Hazards: Structures

Impact 3.8-7: The project could place within a 100-year flood hazard area structures that would impede or redirect flood flows.

Structural (Regional, Centralized, and Distributed) BMPs

In general, the majority of the structural BMPs would consist of either features with a very low profile in terms of having any effect on flood flows (e.g., drainage swales, infiltration trenches, galleries, ponds, planter boxes and pervious pavement) or features that are subterranean (e.g., cisterns, detention basins, dry wells). However, structural BMPs could include above ground detention basins. Above ground detention basins would be required to adhere to any local flood zone construction permitting requirements such that they would not be impede or redirect flood flows. As a result, the impact of structural BMPs would *be less than significant*.

Mitigation Measures: None required

Significance Determination: Less than significant

Non-Structural (Institutional) BMPs

Non-structural BMPs would not include the construction of any structures and therefore there would be no impact related to impeding or redirecting flood flows.

Mitigation Measures: None required

Significance Determination: No impact

Flood Hazards: Levee or Dam Failure

Impact 3.8-8: The proposed project could expose structures to a significant risk of loss, including flooding as a result of the failure of a levee or dam.

Structural (Regional, Centralized, and Distributed) BMPs

The majority of the structural BMPs would consist of features with a very low profile and would be designed to aid in the conveyance of runoff and high flows. Structural BMPs could also include above ground detention basins. Above ground detention basins would not be staffed and not likely to be susceptible to substantive damage in the event of a catastrophic failure of a levee or dam based on the general characteristics of how above ground detention basins are constructed. As a result, the impact of structural BMPs would be less than significant.

Mitigation Measures: None required

Significance Determination: Less than significant

Non-Structural (Institutional) BMPs

Non-structural BMPs would not include the construction of any structures and therefore there would be no impact related to failure of a levee or dam.

Mitigation Measures: None required

Significance Determination: No Impact

Tsunami, Seiche or Mudflow

Impact 3.8-9: The proposed project could place structures in areas subject to inundation by seiche, tsunami, or mudflow.

Structural (Regional, Centralized, and Distributed) BMPs

The project area includes coastal areas and areas that are adjacent to enclosed bodies of water that could be subject to seiche, tsunami, or mudflow. As described above the majority of these BMP facilities consist of either subterranean improvements or low profile features that are generally not considered susceptible to substantive damage from these hazards. Larger above ground improvements such as centralized or regional detention basins, could be located in areas that are within seiche, tsunami, or mudflow hazard areas. However, these structures would not be staffed and any potential damage that they might incur would likely be relatively easily repaired. As a result, the potential impact to structures subject to inundation by seiche, tsunami, or mudflow would be less than significant.

Mitigation Measures: None required

Significance Determination: Less than significant

Non-Structural (Institutional) BMPs

Non-structural BMPs would not include the construction of any structures and therefore there would be no impact related to inundation by seiche, tsunami, or mudflow.

Mitigation Measures: None required

Significance Determination: No impact

Cumulative Impact Discussion

Structural (Regional, Centralized, and Distributed) BMPs

The EWMPs span numerous watersheds within Los Angeles County. Implementation of the proposed structural BMPs, together with past, present, and other reasonably foreseeable future projects across the different watersheds of the region would result in improved stormwater quality and reduced non storm flows. As BMPs are incrementally installed, the Los Angeles region will experience reduced dry-weather runoff, a more natural hydrology, and improved receiving water

quality. In addition, new infiltration projects will incrementally augment groundwater drinking water supplies. Although the increased infiltration projects may increase pollutant loads to groundwater aquifers, pretreatment systems coupled with regional groundwater management lead by the local Watermasters will ensure that the beneficial uses of groundwater basins are not significantly impaired. Implementation of the EWMPs will beneficially impact local surface water quality and groundwater supplies.

Mitigation Measures: None required

Significance Determination: Less than significant

3.8.4 Summary of Impact Assessment

Table 3.8-3 on the following page shows a summary of the structural BMPs requiring mitigation.

TABLE 3.8-3
SUMMARY OF HYDROLOGICAL RESOURCE IMPACTS REQUIRING MITIGATION MEASURES

	Thresholds of Significance						
Structural BMPs	**Surface Water Quality**	**Groundwater**	**Erosion**	**Storm Drain System**	**Flood Hazards**	**Tsunami, Seiche, Mudflows**	**Cumulative Impacts**
Applicable Mitigation Measures:	**None Required**	**HYDRO-1; HYDRO-2; HYDRO-3**	**None Required**	**None Required**	**None Required**	**None Required**	**None Required**
Regional BMPs							
Regional Detention and Infiltration	No	Yes	No	No	No	No	No
Regional Capture, Detention and Use	No	Yes	No	No	No	No	No
Centralized BMP							
Bioinfiltration	No	Yes	No	No	No	No	No
Constructed Wetlands	No	Yes	No	No	No	No	No
Treatment/LFDs	No	Yes	No	No	No	No	No
Creek, River, Estuary Restoration	No	Yes	No	No	No	No	No
Distributed BMPs							
Site Scale Detention	No	Yes	No	No	No	No	No
LID – Infiltration/Filtration BMPs – Porous Pavement, Green Streets, Bioswale/Filter Strips, downspout disconnects	No	Yes	No	No	No	No	No
LID – Green Infrastructure – Capture and Use – Cisterns, Rain Barrels, Green roofs, Planter Boxes	No	No	No	No	No	No	No
Flow-through Treatment BMPs	No	No	No	No	No	No	No
Source Control Treatment BMPs (catch basin inserts/screens, hydrodynamic separators, gross solids removal devices)	No	No	No	No	No	No	No
Low-Flow Diversions	No	No	No	No	No	No	No

NOTE: These conclusions are based on typical size and locations of BMPs.

3.9 Land Use and Agriculture

This section describes and discusses existing land uses and agricultural resources that may be affected by the proposed program in the Enhanced Watershed Management Program (EWMP) areas of Los Angeles County (County) and considers the compatibility of the proposed program with relevant land use plans and policies. The analysis identifies potential impacts that may result from implementing the proposed program and evaluates their significance. Applicable plans and policies related to land use and agriculture are presented and potential impacts and mitigation measures, if needed, are identified.

3.9.1 Environmental Setting

Regional Setting

The proposed program is located in Los Angeles County, which covers an area of about 4,083 square miles and comprises 88 cities and approximately 2,650 square miles of unincorporated areas. The majority of the County is highly urbanized and consists of several cities, communities and unincorporated areas. The proposed projects are located in multiple jurisdictions of Los Angeles County; these include Los Angeles County Flood Control District (LACFCD), the County of Los Angeles, and the following cities: Los Angeles, Beverly Hills, Culver City, Inglewood, Santa Monica, West Hollywood, Hawthorne, El Segundo, Lomita, Baldwin Park, Covina, Glendora, Industry, La Puente, Malibu, Calabasas, Agoura Hills, Westlake Village, Hidden Hills, Santa Clarita, Rancho Palos Verdes, Palos Verdes Estates, Rolling Hills Estates, Redondo Beach, Hermosa Beach, Torrance, Manhattan Beach, Arcadia, Azusa, Bradbury, Duarte, Monrovia, Sierra Madre, Alhambra, Burbank, Glendale, Hidden Hills, La Cañada Flintridge, Montebello, Monterey Park, Pasadena, Rosemead, San Gabriel, San Marino, South Pasadena, and Temple City (see Figure 1-1). Each of these jurisdictions have independent planning documents that guide the development of urban, agricultural, and other land uses within their jurisdictional boundaries.

Existing Land Use Characterization

Land uses within the County are widely varied and include open space, residential, commercial, mixed-use, public and semi-public, and industrial land uses. The proposed program would be located in various watersheds across Los Angeles County that span multiple jurisdictions with varying land use regulations. The existing land uses within each watershed are summarized in this section by EWMP group and are based upon information from the Southern California Association of Government (SCAG) and the EWMP Work Plans. The EWMP agencies have no jurisdiction over the land that is owned by the State of California (i.e., California Department of Fish and Wildlife, the State Lands Commission, and the California Department of Transportation) or the U.S. Government.

Ballona Creek

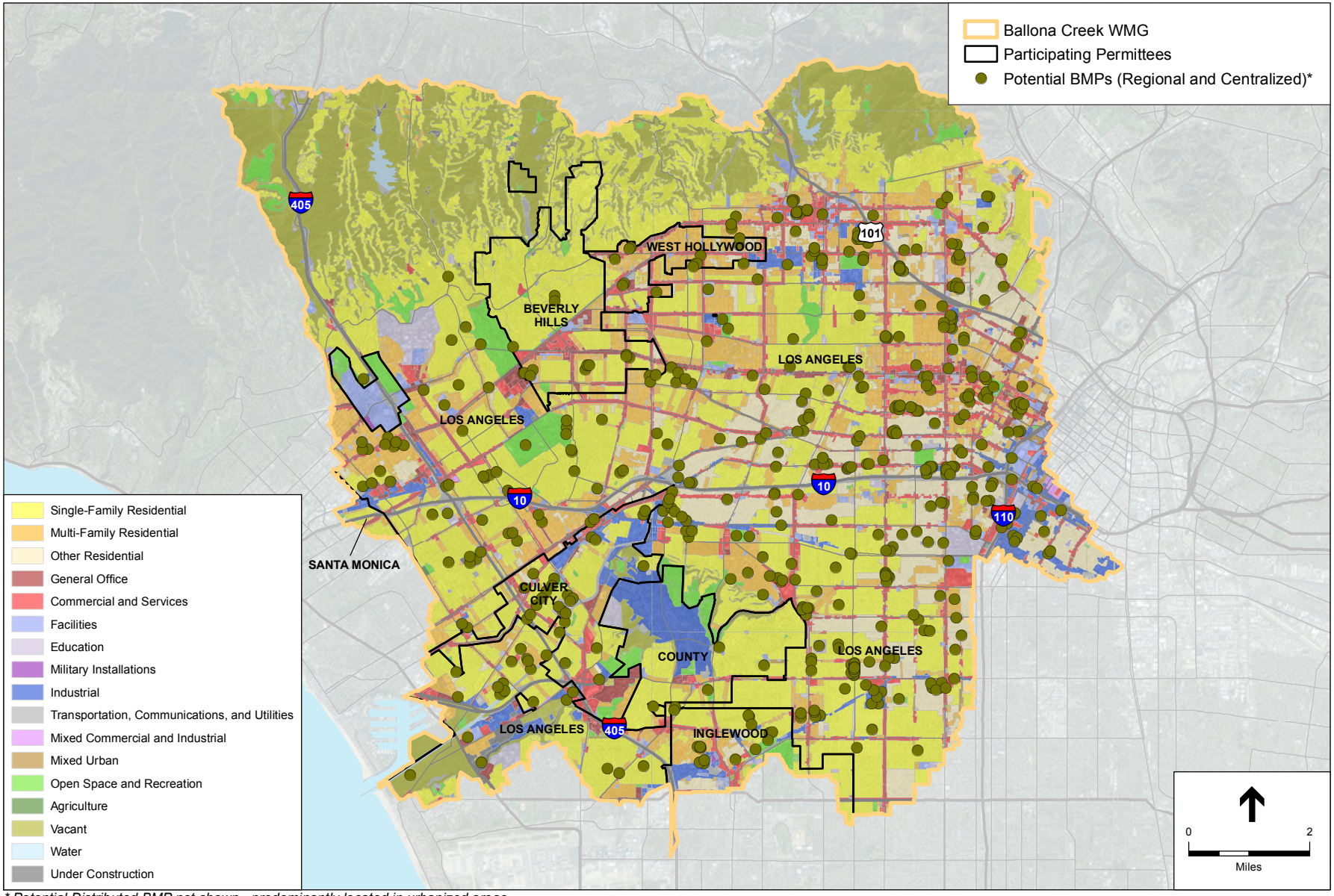
The Ballona Creek EWMP area covers the Ballona Creek Watershed. The Permittees within this EWMP are: the Cities of Beverly Hills, West Hollywood, Los Angeles, Inglewood, Culver City, Santa Monica; the County of Los Angeles; and LACFCD. The Ballona Creek Watershed comprises the cities of Beverly Hills, Culver City, and West Hollywood and parts of Inglewood, Los Angeles and Santa Monica as well as small unincorporated areas of Los Angeles County. Collectively, the Municipal Separate Stormwater Sewer Systems (MS4) Permittees in the Ballona Creek Watershed have jurisdiction over 123 square miles or 96 percent of the total watershed area. A breakdown of areas by MS4 Permittees is provided in **Table 3.9-1**.

TABLE 3.9-1
BALLONA CREEK WATERSHED LAND AREA DISTRIBUTION

Agency	Land Area (Acres)	Percent of EWMP Area
City of Los Angeles	65,272.89	83.21%
County of Los Angeles	3,164.76	4.03%
City of Beverly Hills	3,618.95	4.61%
City of Culver City	3,125.00	3.98%
City of Inglewood	1,907.72	2.43%
City of West Hollywood	1,135.00	1.45%
City of Santa Monica	217.31	0.28%
Total	**78,441.63**	**100.00%**

SOURCE: Ballona Creek EWMP Work Plan, 2014.

The population in the Ballona Creek Watershed is approximately 1.6 million people (LADPW, 2004). The predominant land use in the Ballona Creek Watershed is residential, representing 63.7 percent of the total land area, including multi-family residential uses covering 18 percent of the area. Although open space areas represent 16.7 percent, this category may include parks and other open areas not generally open to the public, including vacant land and golf courses (LADPW, 2004). Commercial, public, light industrial, other urban and unknown land uses represents 19.6 percent of the total land area. **Figure 3.9-1** shows land uses in the Ballona Creek Watershed and the location of planned and priority regional/centralized Best Management Practices (BMPs). The location of distributed BMPs would be throughout the urbanized areas of the watershed.



** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: ESRI; SCAG

LA County PEIR EWMP . 140474

Figure 3.9-1

Land Use in the Ballona Creek Watershed Management Group

Beach Cities

The Beach Cities EWMP area covers portions of two watersheds: Santa Monica Bay Watershed (Jurisdictional Group [JG] 5 and JG6) and the Dominguez Channel Watershed. The Permittees within this EWMP are: the Cities of Redondo Beach, Manhattan Beach, Hermosa Beach, and Torrance; and the LACFCD. **Figure 3.9-2** shows land uses in the Beach Cities EWMP area and the location of planned and priority regional/centralized BMPs. The location of distributed BMPs would be throughout the urbanized areas of the watershed.

The western portion of the Beach Cities EWMP area consists of approximately 7,840 acres of land that drains to Santa Monica Bay. This accounts for 38.4 percent of the total Beach Cities Watershed Management Group area, and includes portions of the cities of Manhattan Beach, Redondo Beach, and Torrance and the entirety of the City of Hermosa Beach.

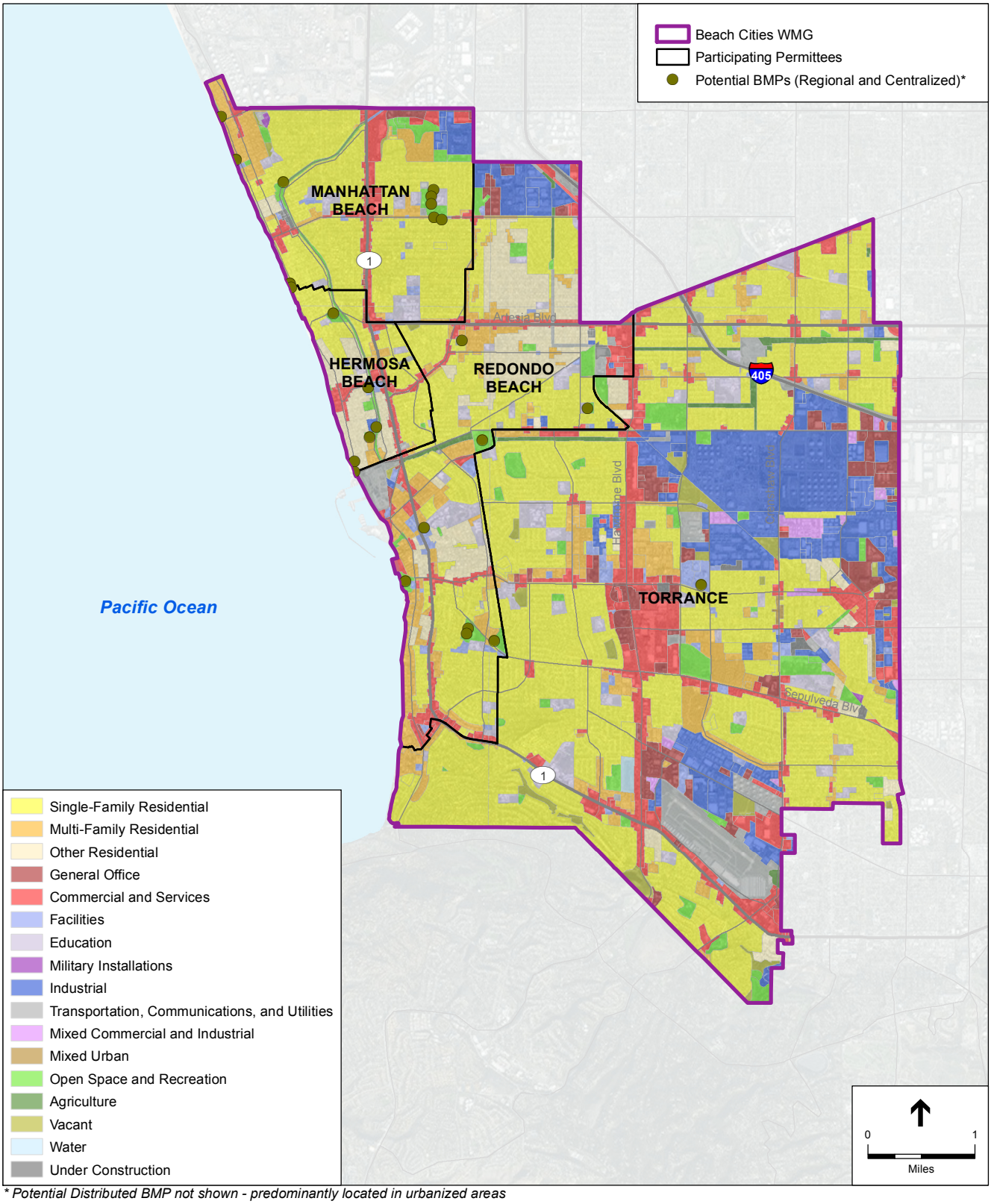
The northeastern portion of the Beach Cities EWMP area is tributary to Dominguez Channel (including the Torrance Carson Channel) and comprises approximately 7,380 acres of land. This watershed accounts for 36.1 percent of the total Beach Cities EWMP area, and includes portions of the cities of Manhattan Beach, Redondo Beach, and Torrance. Storm drains from the Cities of Manhattan Beach and Redondo Beach drain through the City of Lawndale before discharging to Dominguez Channel. Torrance's MS4 discharges directly to the Dominguez Channel and Torrance Carson Channel (Torrance Lateral).

The southeastern portion of the Beach Cities EWMP area is tributary to Machado Lake (including Wilmington Drain) and comprises approximately 5,182 acres of land. This watershed accounts for 25.5 percent of the total Beach Cities EWMP area. All but 1.2 acres (0.02 percent) of this area is within the City of Torrance. The City of Redondo Beach owns the remainder of the area, though no Redondo Beach catch basins or MS4 are tributary to Machado Lake. LACFCD is not responsible for land within the Beach Cities EWMP area, but does own and maintain infrastructure within all three watersheds. A breakdown of areas by MS4 Permittee is provided in **Table 3.9-2**.

TABLE 3.9-2
BEACH CITIES WATERSHED LAND AREA DISTRIBUTION

Agency	SMB Watershed (acres)	Dominguez Channel Watershed (acres)	Machado Lake Watershed (acres)	Total EWMP Area (acres)	Percent of EWMP Area
Redondo Beach	2,614	1,217	1	3,832	19%
Manhattan Beach	2,078	350	-	2,428	12%
Hermosa Beach	832	-	-	832	4%
City of Torrance	2,314	5,812	5,181	13,307	65%
Total	**7,837**	**7,379**	**5,182**	**20,399**	**100%**

SOURCE: Beach Cities EWMP Work Plan, 2014.



** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: ESRI; SCAG

LA County PEIR EWMP . 140474

Figure 3.9-2

Land Uses in the Beach Cities Watershed Management Group

Dominguez Channel

The Dominguez Channel EWMP area covers portions of the Dominguez Channel Watershed and the Machado Lake and the Los Angeles/Long Beach Harbor subwatersheds. The Dominguez Channel EWMP addresses approximately 36,410 acres, or 47.45 percent of the total 133-square-mile watershed. The Permittees within this EWMP are: the Cities of El Segundo, Hawthorne, Inglewood, Lomita, and Los Angeles; the County of Los Angeles; and the LACFCD. A breakdown of areas by MS4 Permittee and other agencies is provided in **Table 3.9-3**. **Figure 3.9-3** shows land use in the Dominguez Channel EWMP area and the location of planned and priority regional/centralized BMPs. The location of distributed BMPs would be throughout the urbanized areas of the watershed. **Table 3.9-4** provides the land use breakdown within the Dominguez Channel EWMP.

TABLE 3.9-3
DOMINGUEZ CHANNEL WATERSHED LAND AREA DISTRIBUTION

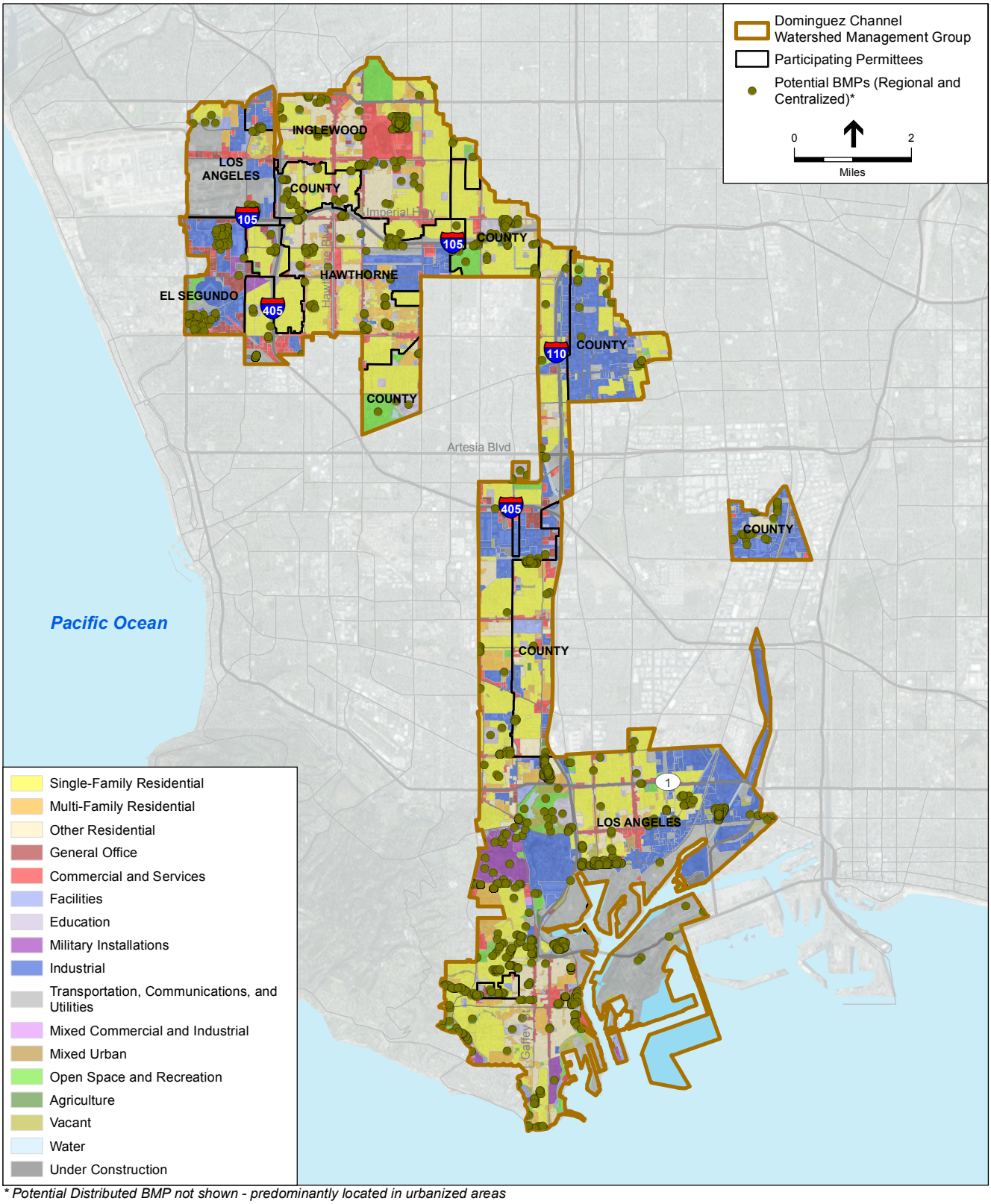
Agency	Area in Machado Lake Watershed (acres)	Area in Dominguez Channel Watershed (acres)	Area in LA/LB Harbors Watershed (acres)	Total Area in EWMP (acres)	Percent of EWMP Area
City of El Segundo	0	1,252.18	0	1,252.18	3.44%
City of Hawthorne	0	3,891.91	0	3,891.91	10.69%
City of Inglewood	0	3,884.28	0	3,884.27	10.67%
City of Lomita		1,227.70			3.26%
City of Los Angeles	1,998.42	19,243.25	11,258.12	19,243.20	52.85%
Los Angeles County	1,250.87	6,755.77	134.23	8,140.87	22.36%

SOURCE: Dominguez Channel EMWP Work Plan and Notice of Intent, 2014.

TABLE 3.9-4
DOMINGUEZ CHANNEL WATERSHED LAND USE

Agency	Total Area (acres)	Percent of EWMP Area
Agriculture	0.2	0.3%
Commercial	10.7	18.4%
Industrial	9.1	15.7%
Multi-Family Residential	8.3	14.2%
Single Family Residential	16.1	27.7%
Open	4.6	7.8%
Other Urban	9.3	15.9
Total	**58.3**	**100%**

SOURCE: Dominguez Channel EMWP Work Plan, 2014.



** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: ESRI; SCAG

LA County PEIR EWMP . 140474

Figure 3.9-3

Land Use in the Dominguez Channel Watershed Management Group

Malibu Creek

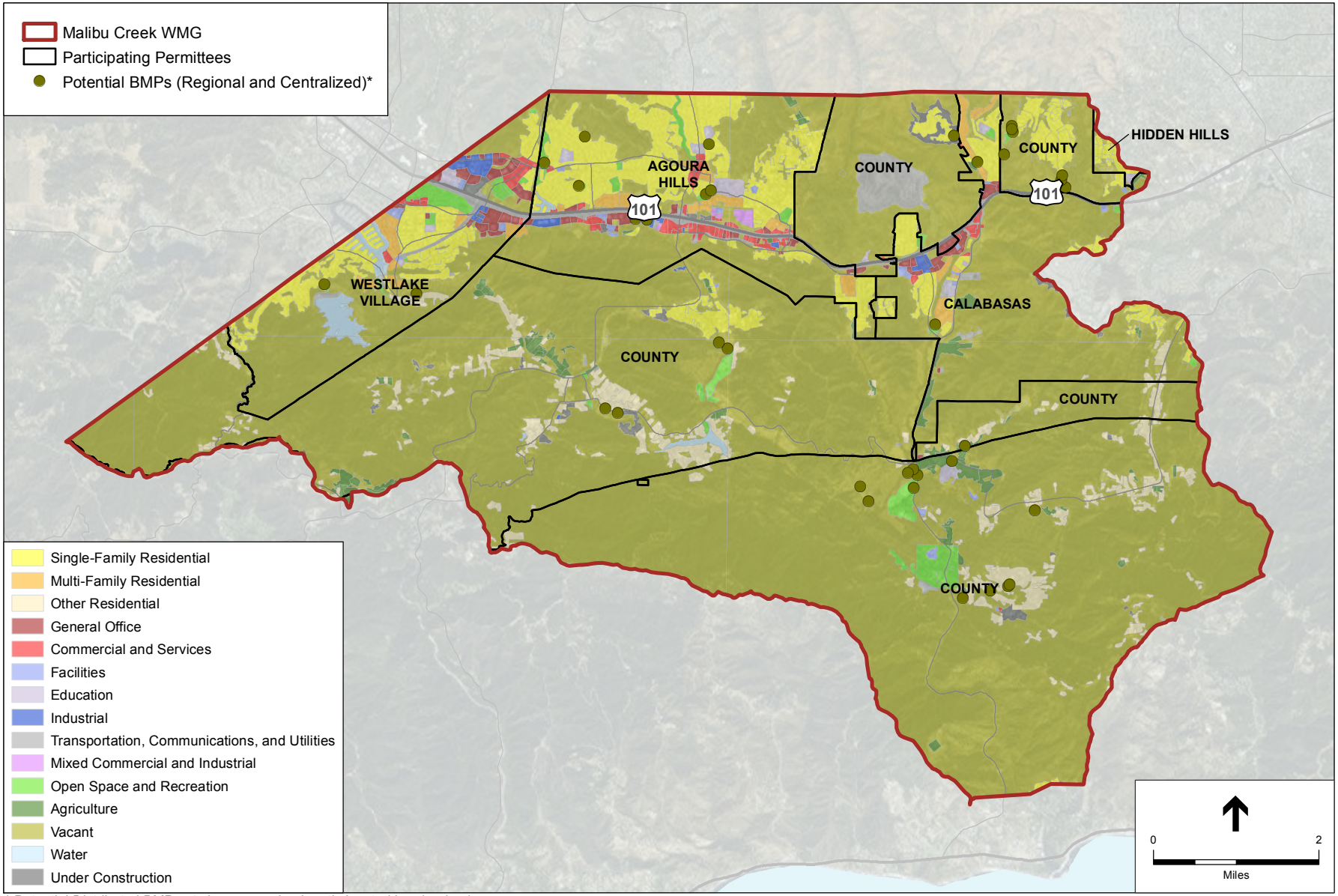
The Malibu Creek Watershed EWMP area covers the majority of the Malibu Creek Watershed. The Permittees within this EWMP are: the Cities of Agoura Hills, Calabasas, Hidden Hills, and Westlake Village; the County of Los Angeles; and the LACFCD.

Malibu Creek Watershed land uses are 81 percent vacant, 11 percent residential, 2 percent open space and recreation, 2 percent commercial and public, 1 percent transportation and utilities, and 1percent mixed-use (LADPW, 2005a). The Malibu Creek Watershed EWMP area is approximately 32,992 acres, which is approximately 46.7 percent of the total area in the Malibu Creek Watershed. A breakdown of areas by MS4 Permittee and other agencies is provided in **Table 3.9-5**. **Figure 3.9-4** shows land use in the Malibu Creek Watershed EWMP area and the location of planned and priority regional/centralized BMPs. The location of distributed BMPs would be throughout the urbanized areas of the watershed.

TABLE 3.9-5
MALIBU CREEK WATERSHED LAND AREA DISTRIBUTION

Agency	Total Area (acres)	Percent of EWMP Area
City of Agoura Hills	5,178	15.7%
City of Calabasas	4,941	15.0%
City of Hidden Hills	105	0.3%
City of Westlake Village	3,540	10.7%
County of Los Angeles	19,228	58.3%

SOURCE: Malibu Creek EMWP Work Plan, 2014.



** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: ESRI; SCAG

LA County PEIR EWMP . 140474

Figure 3.9-4

Land Use in the Malibu Creek Watershed Management Group

Marina del Rey

The Marina del Rey EWMP area covers the Marina del Rey Watershed. The Permittees within this EWMP are: the Cities of Los Angeles and Culver City; the County of Los Angeles; and LACFCD.

Land uses within the Marina del Rey Watershed are 52 percent residential, 46 percent commercial and 2 percent open space (LADPW, 2014a). A breakdown of areas by MS4 Permittee and other agencies is provided in **Table 3.9-6**. **Figure 3.9-5** shows land use in the Marina del Rey Watershed EWMP area and the location of planned and priority regional/centralized BMPs. The location of distributed BMPs would be throughout the urbanized areas of the watershed. **Table 3.9-7** provides the land use breakdown within the Marina del Rey Watershed.

TABLE 3.9-6
MARINA DEL REY WATERSHED LAND AREA DISTRIBUTION

Agency	Total Area (acres)	Percent of EWMP Area
City of Los Angeles	971.3	69%
City of Culver City	42.2	3%
County of Los Angeles	395.7	28%
Total	**1,409**	**100%**

SOURCE: Marina del Rey EMWP Work Plan, 2014.

TABLE 3.9-7
MARINA DEL REY WATERSHED LAND USE

Agency	City of Culver (acres)	City of Los Angeles (acres)	County of Los Angeles (acres)	Total Area (acres)
Single-Family Residential	6.8	230.6	0.3	237.7
Multi-Family Residential	0	229.4	156.9	386.3
Institutional/Public Facilities	0	83.7	4.2	87.9
Commercial and Services	24.3	122.3	122.0	268.6
Industrial/Mixed with Industrial	0	27.7	0	27.7
Transportation/Road	11.1	246.4	39.8	297.3
Developed Recreation/Marina Parking	0	0.9	43.3	44.2
Beach	0	0	8.2	8.2
Water	0	30.3	13.5	43.8
Vacant	0	0	7.6	7.6
Total	**42.2**	**971.3**	**395.7**	**1,409**

SOURCE: Marina del Rey EMWP Work Plan, 2014.

SOURCE: ESRI; SCAG

LA County PEIR EWMP . 140474

Figure 3.9-5

Land Use in the Marina del Rey Watershed Management Group

North Santa Monica Bay

The North Santa Monica Bay EWMP area covers the north region of the Santa Monica Bay Watershed (JG1 and JG4 and a portion of JG9) within the city of Malibu's borders. The Permittees within this EWMP are: the City of Malibu; County of Los Angeles; and LACFCD. The North Santa Monica Bay EWMP area encompasses 55,121 acres. The North Santa Monica Bay EWMP area is over 93 percent vacant land. The EWMP Group land use breakdowns by JG and watershed are shown in **Table 3.9-8**. **Figure 3.9-6** shows land uses in the North Santa Monica Bay EWMP area and the location of planned and priority regional/centralized BMPs. The location of distributed BMPs would be throughout the urbanized areas of the watershed.

TABLE 3.9-8
NORTH SANTA MONICA BAY WATERSHED LAND USE

Agency	JG1/Zuma Canyon	JG1/Solstice Canyon	JG1/Santa Monica Beach	JG1/Garapito Creek	JG1 & 4 Arroyo Sequit	Cold Creek-Malibu Creek	Total Area (acres)
Vacant	89.0%	87.7%	91.7%	94.9%	96.5%	95.8%	93.1%
Agricultural	1.9%	0.7%	0.0%	0.6%	0.9%	0.7%	0.8%
Commercial	0.5%	0.6%	0.8%	0.2%	0.2%	0.2%	0.4%
Single Family Residential	7.7%	8.8%	7.0%	4.1%	2.2%	3.0%	5.0%
Multi-Family Residential	0.5%	0.7%	0.4%	0.2%	0.1%	0.2%	0.3%
Industrial	0.1%	0.1%	0.0%	0.0%	0.0%	0.2%	0.1%
Education	0.3%	1.4%	0.0%	0.1%	0.0%	0.0%	0.3%

SOURCE: North Santa Monica Bay EMWP Work Plan, 2014.

** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: ESRI; SCAG

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Figure 3.9-6

Land Uses in the North Santa Monica Bay Watershed Management Group

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Peninsula Cities

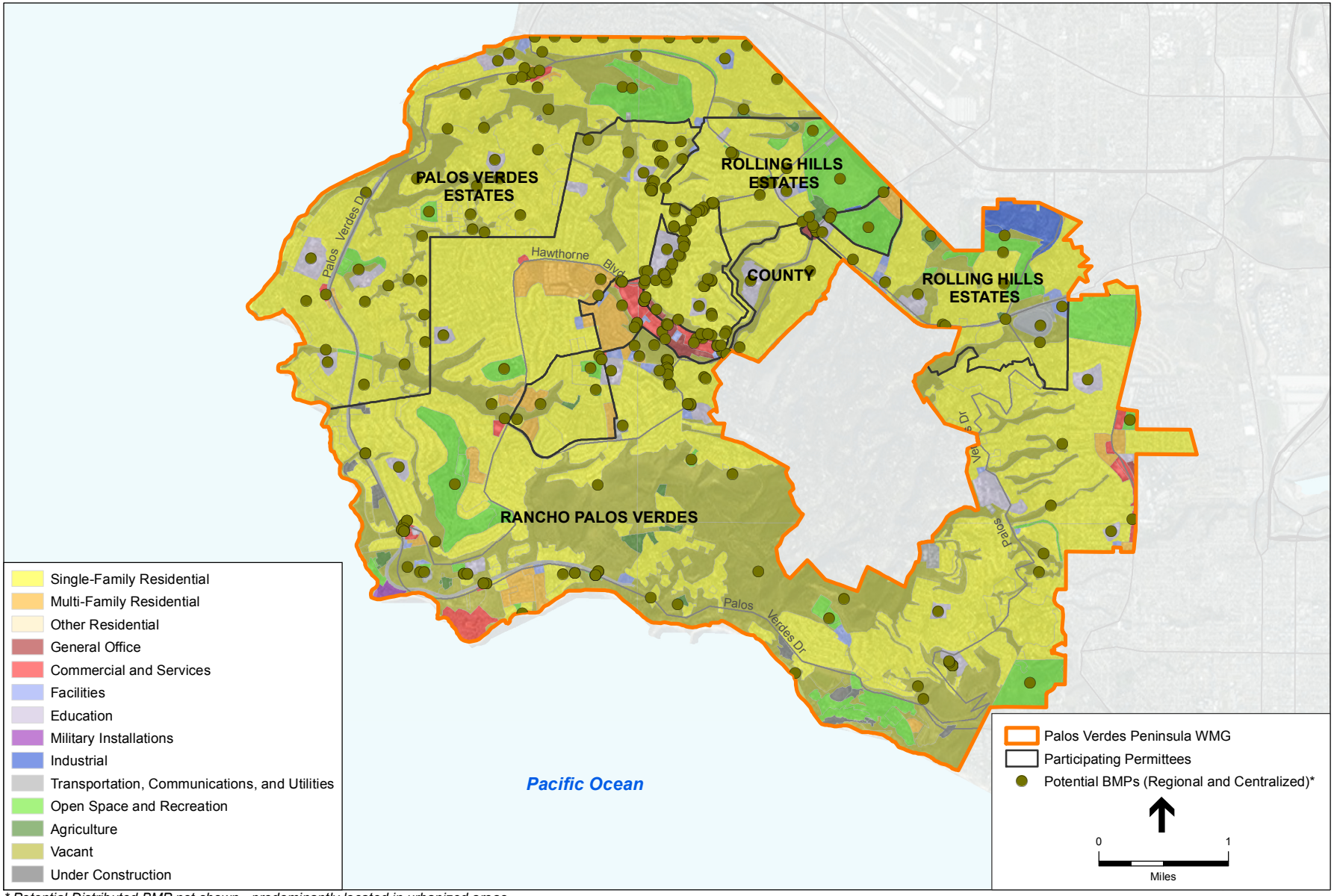
The Peninsula Cities EWMP area covers most of the Santa Monica Bay Watershed JG7, the Los Angeles/Long Beach Harbor Watershed, and the Machado Lake Watershed. The Permittees within this EWMP are: the Cities of Rancho Palos Verdes, Palos Verdes Estates, and Rolling Hills Estates; the County of Los Angeles; and LACFCD.

The Santa Monica Bay Watershed accounts for 63 percent (14.2 square miles) of the total Peninsula watershed management group area, and includes portions of the cities of Palos Verdes Estates, Rancho Palos Verdes, and Rolling Hills Estates. The Los Angeles Harbor subwatershed accounts for 15 percent (3.4 square miles) of the total Peninsula watershed management group area, and includes portions of the cities of Rancho Palos Verdes and Rolling Hills Estates. The Machado Lake subwatershed accounts for 22 percent (4.9 square miles) of the total Peninsula watershed management group area, and includes portions of the cities of Palos Verdes Estates, Rancho Palos Verdes, and Rolling Hills Estates and the County of Los Angeles. **Table 3.9-9** provides the Peninsula EWMP area identified by watershed and agency. **Figure 3.9-7** shows land uses in the Palos Verdes Peninsula EWMP area and the location of planned and priority regional/centralized BMPs. The location of distributed BMPs would be throughout the urbanized areas of the watershed.

TABLE 3.9-9
PALOS VERDES PENINSULA LAND AREA DISTRIBUTION

Agency	Santa Monica Bay (Square Miles)	Machado Lake (Square Miles)	Los Angeles Harbor (Square Miles)	Total EWMP Area
Rancho Palos Verdes	9.35	1.07	3.02	13.5
Palos Verdes Estates	4.35	0.39	0	4.8
Rolling Hills Estates	0.46	2.78	0.34	3.6
County of Los Angeles	0	0.70	0	0.7
Total	**14.2**	**4.9**	**3.4**	**22.6**

SOURCE: Palos Verdes Peninsula EMWP Work Plan, 2014.



** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: ESRI; SCAG

LA County PEIR EWMP . 140474

Figure 3.9-7

Land Uses in the Palos Verdes Peninsula EWMP Agencies

Rio Hondo/San Gabriel River

The Rio Hondo/San Gabriel River EWMP area covers portions of the Los Angeles and San Gabriel River watersheds. The Permittees within this EWMP are: the Cities of Arcadia, Azusa, Bradbury, Duarte, Monrovia, and Sierra Madre; the County of Los Angeles; and LACFCD.

Table 3.9-10 provides the size and percentage of each participating member's jurisdiction within the group and the percent contribution to the Los Angeles River and/or San Gabriel River Watersheds. The area included in the Rio Hondo/San Gabriel River EWMP encompasses approximately 41 square miles of predominately residential and open space land use and excludes areas in the Angeles National Forest. Of the total Los Angeles River and San Gabriel River Watershed areas, the Rio Hondo/San Gabriel River EWMP members have jurisdiction over 4 and 3 percent of the total watersheds, respectively. **Table 3.9-11** depicts the watershed land use categories within the Rio Hondo/San Gabriel River EWMP area. **Figure 3.9-8** shows land uses in the Rio Hondo/ San Gabriel River EWMP area and the location of planned and priority regional/centralized BMPs. The location of distributed BMPs will be throughout the urbanized areas of the watershed.

TABLE 3.9-10
RIO HONDO/SAN GABRIEL RIVER LAND AREA DISTRIBUTION

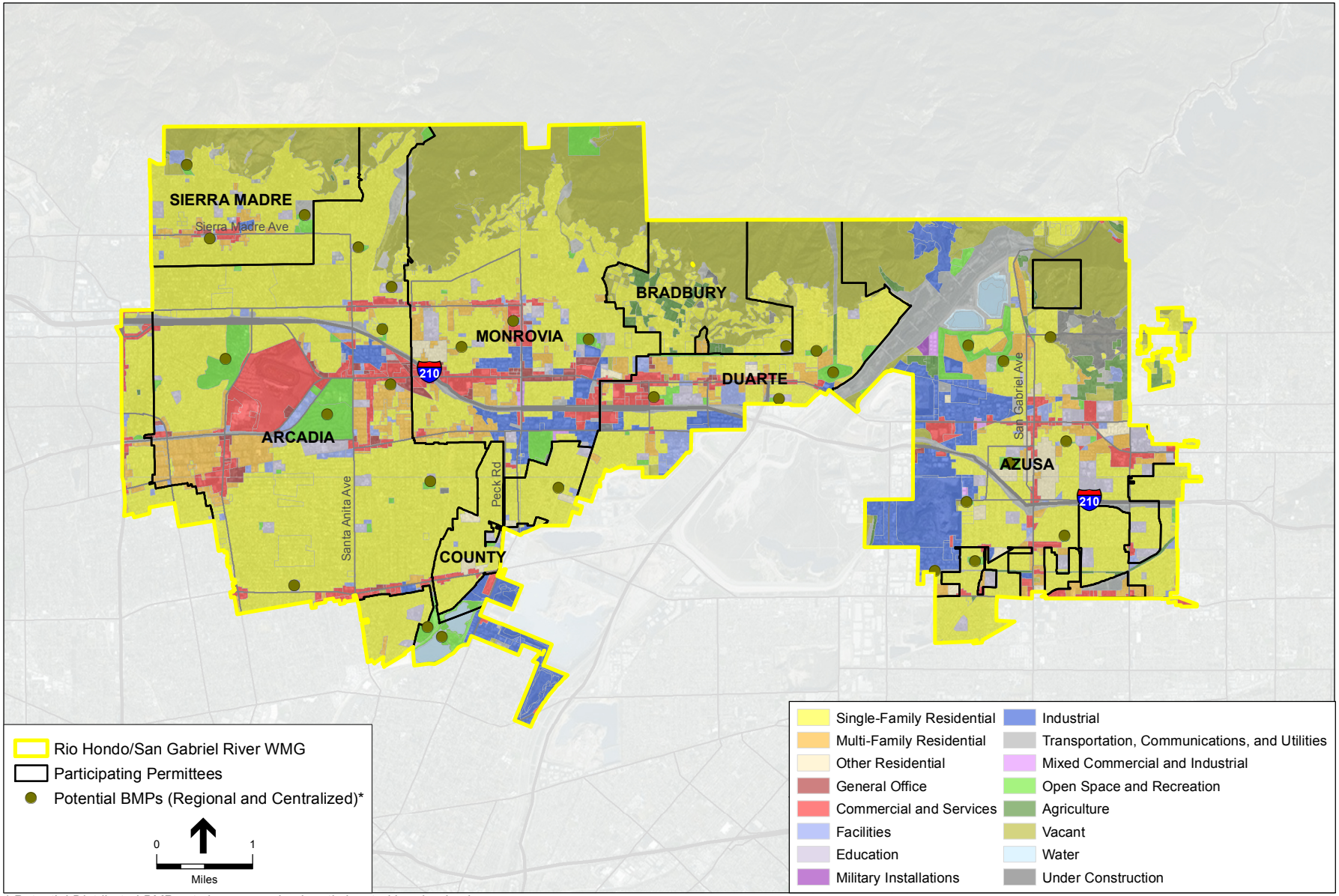
Agency	Area Inside Rio Hondo/ San Gabriel River (square miles)	Percent in Rio Hondo/ San Gabriel River Watershed	Percent in Los Angeles River Watershed	Percent in San Gabriel River Watershed
Arcadia	11	27	99	1
Azusa	9	22	0	100
Bradbury	2	5	41	59
Duarte	4	0	37	63
Monrovia	8	19	99	1
Sierra Madre	3	7	100	0
Los Angeles County	4	10	54	46

SOURCE: Rio Hondo/San Gabriel River EMWP Work Plan, 2014.

TABLE 3.9-11
RIO HONDO/SAN GABRIEL RIVER WATERSHED LAND USE

Agency	Area (square miles)	Percentage
Vacant	9.9	3
Agricultural	1.1	8
Commercial	3.5	3
Single Family Residential	19.3	7
Multi-Family Residential	2.8	7
Industrial	2.8	47
Education	1.1	1
Transportation	0.7	24
Total	**41.2**	**100**

SOURCE: Rio Hondo/San Gabriel River EMWP Work Plan, 2014.



** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: ESRI; SCAG

LA County PEIR EWMP . 140474

Figure 3.9-8

Land Uses in the Rio Hondo / San Gabriel River Watershed Management Group

Santa Monica Bay Jurisdictional Groups 2 & 3

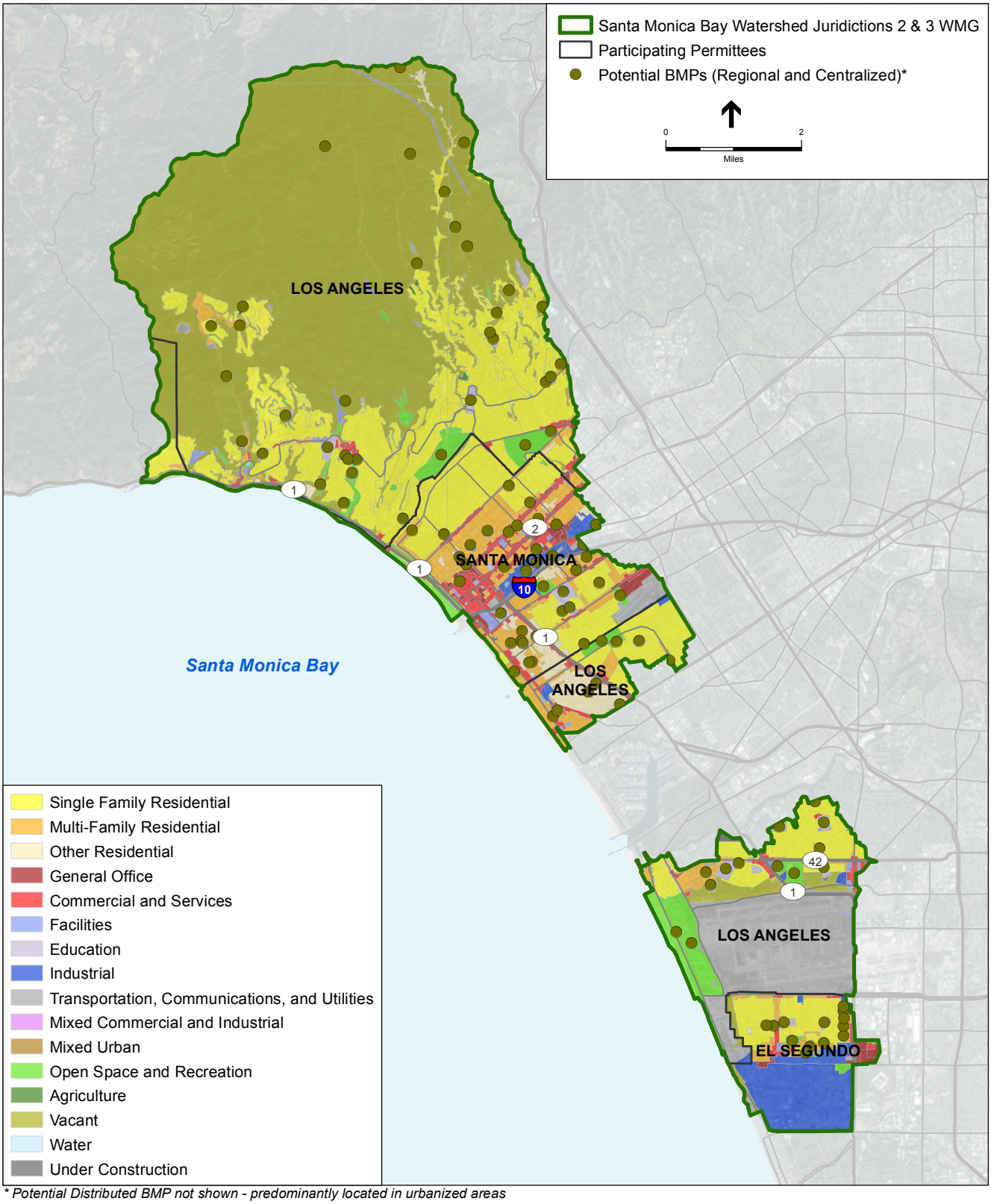
The Santa Monica Bay EWMP area covers the central region of the Santa Monica Bay Watershed (JG2 and JG3) and includes the urbanized Dockweiler and Santa Monica subwatersheds, as well as natural open space located in the Castle Rock, Pulga Canyon, Temescal Canyon, and Santa Monica Canyon subwatersheds. The Permittees within this EWMP include the Cities of Los Angeles, Santa Monica, and El Segundo; the County of Los Angeles; and LACFCD.

The Santa Monica Bay EWMP Group area covers 34,362 acres. Approximately 49 percent of the Santa Monica Bay EWMP Group area is open space, and approximately 93 percent of the open space is located the northern subwatersheds and approximately 7 percent is located in the Dockweiler subwatershed. Approximately 67 percent of the Santa Monica Bay EWMP Group area is pervious according to geographic information system (GIS) data from the Los Angeles County Department of Public Works, the large majority of which comes from the northern-most subwatersheds of Castle Rock, Pulga Canyon, Temescal Canyon, and Santa Monica Canyon. **Table 3.9-12** provides the size and percentage of each participating member's jurisdiction within the watershed. **Figure 3.9-9** shows land uses in the Santa Monica Bay EWMP area and the location of planned and priority regional/centralized BMPs. The location of distributed BMPs would be throughout the urbanized areas of the watershed.

TABLE 3.9-12
SANTA MONICA BAY LAND AREA DISTRIBUTION

Agency	Land area (acres)	Percent of EWMP Area
City of Los Angeles	18,934.64	75.02%
City of Santa Monica	4,987.47	19.76%
City of El Segundo	1,185.63	4.70%
Los Angeles County	130.40	0.52%

SOURCE: Santa Monica Bay EMWP Work Plan, 2014.



** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: ESRI; SCAG

LA County PEIR EWMP . 140474

Figure 3.9-9

Land Use in the Santa Monica Bay Watershed Jurisdictions 2 and 3 Watershed Management Group

Upper Los Angeles River

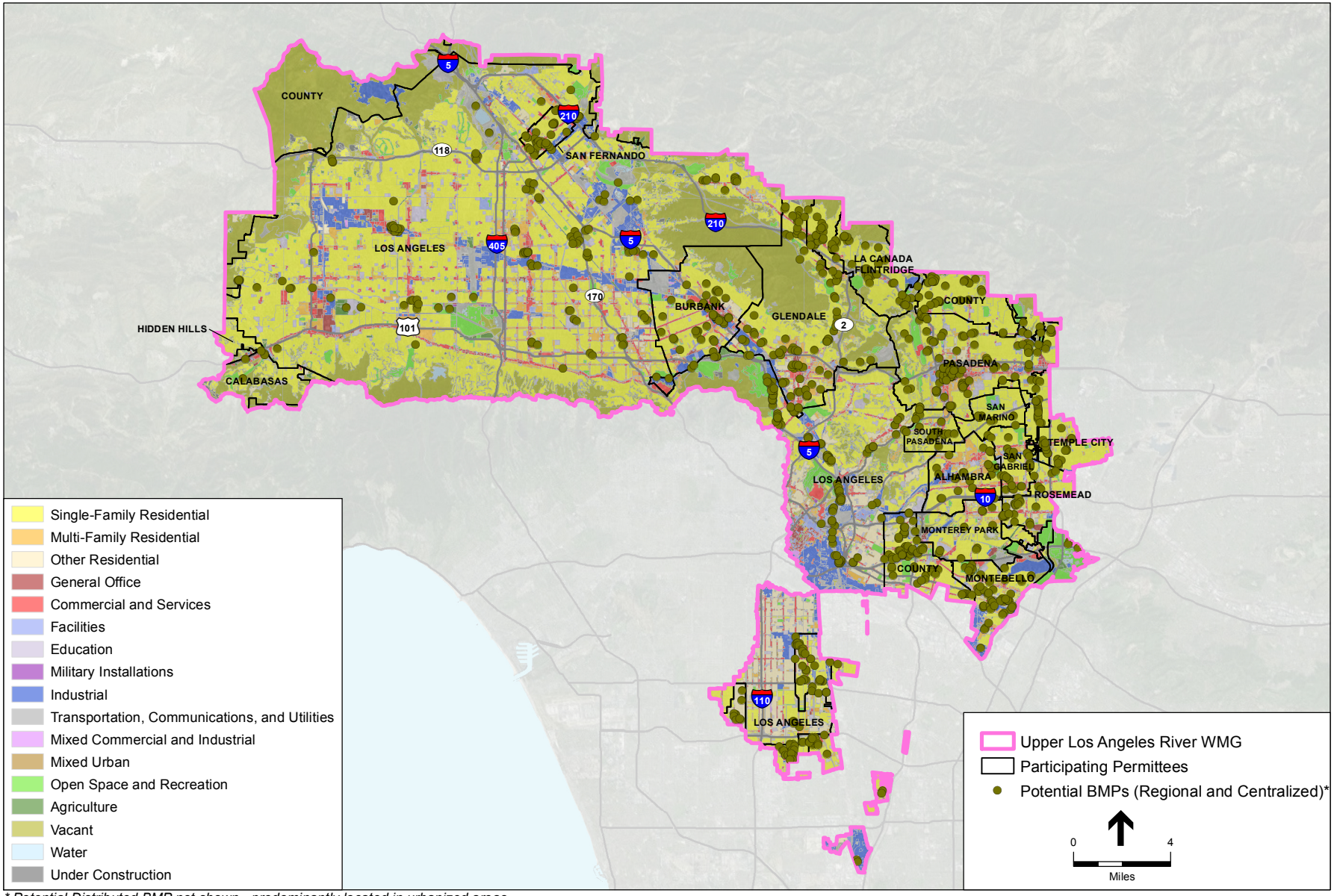
The Upper Los Angeles River EWMP area covers the upper reaches of the Los Angeles River Watershed. The Permittees within this EWMP are: the Cities of Alhambra, Burbank, Calabasas, Glendale, Hidden Hills, La Cañada Flintridge, Los Angeles, Montebello, Monterey Park, Pasadena, Rosemead, San Gabriel, San Marino, South Pasadena, and Temple City; the County of Los Angeles; and LACFCD.

The area included in the Upper Los Angeles River Watershed EWMP is approximately 479 square miles, or 57.43 percent of the total watershed area. **Table 3.9-13** provides the size and percentage of each participating member's jurisdiction within the watershed. **Figure 3.9-10** shows land uses in the Upper Los Angeles River EWMP area and the location of planned and priority regional/centralized BMPs. The location of distributed BMPs would be throughout the urbanized areas of the watershed.

TABLE 3.9-13
UPPER LOS ANGELES RIVER LAND AREA DISTRIBUTION

Agency	Land area (acres)	Percent of EWMP Area
City of Los Angeles	18,934.64	75.02%
City of Alhambra	4,884.31	1.60%
City of Burbank	11,095.20	3.62%
City of Calabasas	4,005.68	1.31%
City of Glendale	19,587.50	6.40%
City of Hidden Hills	961.03	0.31%
City of La Canada Flintridge	5,534.46	1.81%
City of Montebello	5,356.38	1.75%
City of Monterey Park	4,951.51	1.62%
City of Pasadena	14,805.30	4.84%
City of Rosemead	3,310.87	1.08%
City of San Gabriel	2,644.87	0.86%
City of San Marino	2,409.64	0.79%
City of South Pasadena	2,186.20	0.71%
City of Temple City	2,576.50	0.84%
Los Angeles County	40,553.34	13.25%

SOURCE: Upper Los Angeles River EMWP Work Plan, 2014.



** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: ESRI; SCAG

LA County PEIR EWMP . 140474

Figure 3.9-10

Land Use in the Los Angeles River Watershed
Watershed Management Group

Upper San Gabriel River

The Upper San Gabriel River EWMP area covers portions of the San Gabriel River Watershed. The Permittees within this EWMP are: the Cities of Baldwin Park, Covina, Glendora, Industry, and La Puente; the County of Los Angeles; and LACFCD.

Table 3.9-14 provides the size and percentage of each participating member's jurisdiction within the watershed. **Figure 3.9-11** shows land uses in the Upper San Gabriel River EWMP area.

TABLE 3.9-14
UPPER SAN GABRIEL RIVER LAND AREA DISTRIBUTION

Agency	Land area (acres)	Percent of EWMP Area
City of Baldwin Park	4,335	6.3%
City of Covina	4,481	6.5%
City of Glendora	9,307	13.5%
City of Industry	7,647	11.1%
City of La Puente	2,207	3.2%
Los Angeles County	40,812	59.4%

SOURCE: Upper San Gabriel River EMWP Work Plan, 2014.

Upper Santa Clara River

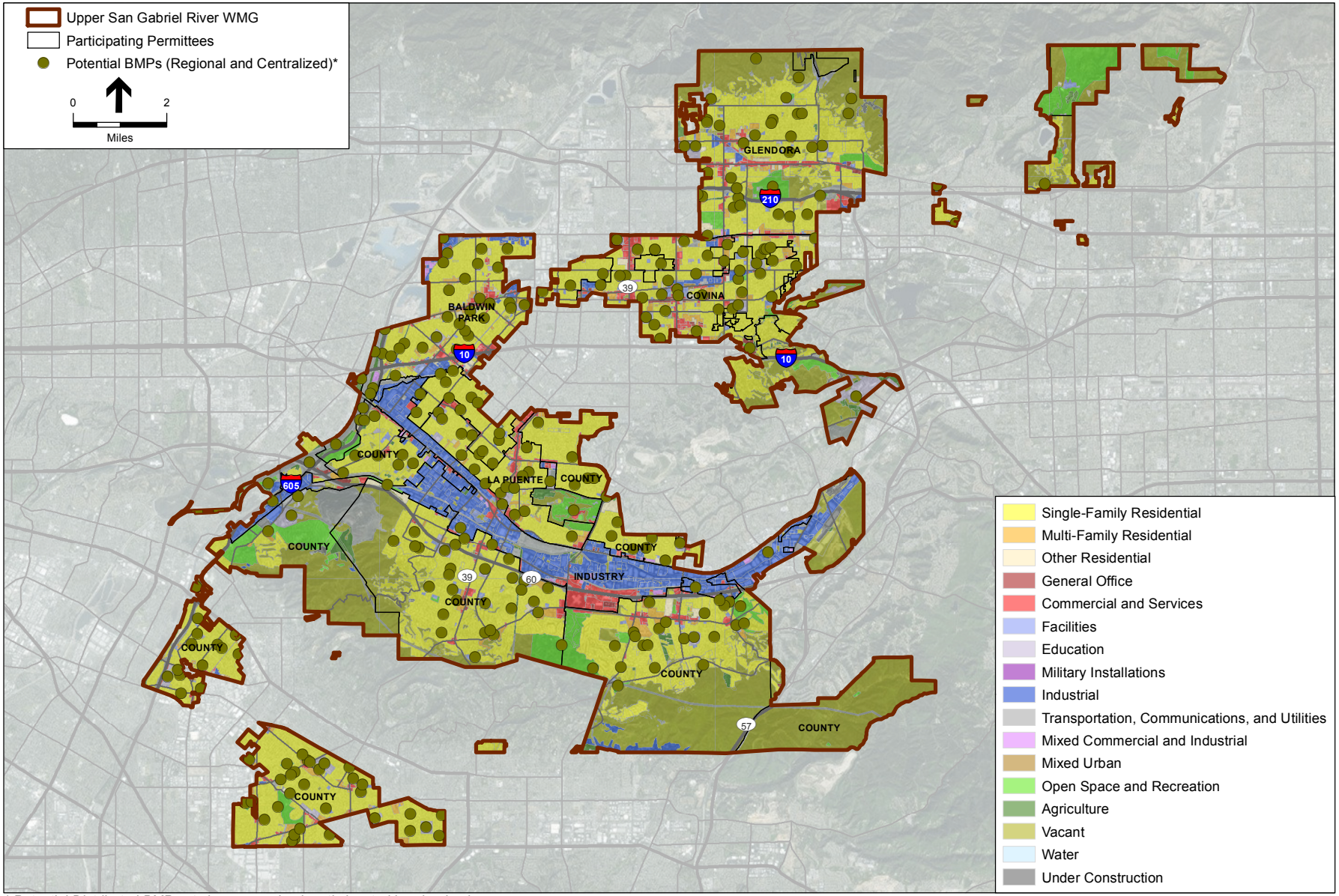
The Upper Santa Clara River EWMP area covers approximately 121,423 acres the Upper Santa Clara River Watershed. The Permittees within this EWMP are the City of Santa Clarita; the County of Los Angeles; and LACFCD.

Land uses within the Santa Clara River Watershed include residential, commercial, agricultural and undeveloped land (LADPW, 2014b). Within the 500-year river flood plain, the most prevalent land use is open space (62 percent), followed by agriculture (29 percent). The remaining land uses can be considered developed and/or urbanized and make up less than 10 percent of the total (LADPW, 2005b). Of the total watershed area, the City of Santa Clarita and County of Los Angeles have jurisdiction over 46 percent of the land area. **Table 3.9-15** provides the size and percentage of each participating member's jurisdiction within the watershed. **Figure 3.9-12** shows land uses in the Upper Santa Clara River Watershed EWMP area.

TABLE 3.9-15
UPPER SANTA CLARA RIVER LAND AREA DISTRIBUTION

Agency	Land area (acres)	Percent of EWMP Area
City of Santa Clarita	39,451	32.5%
Los Angeles County	81,972	67.5%
Total EWMP Area	**121,423**	**100%**

SOURCE: Upper Santa Clara River EMWP Work Plan, 2014.



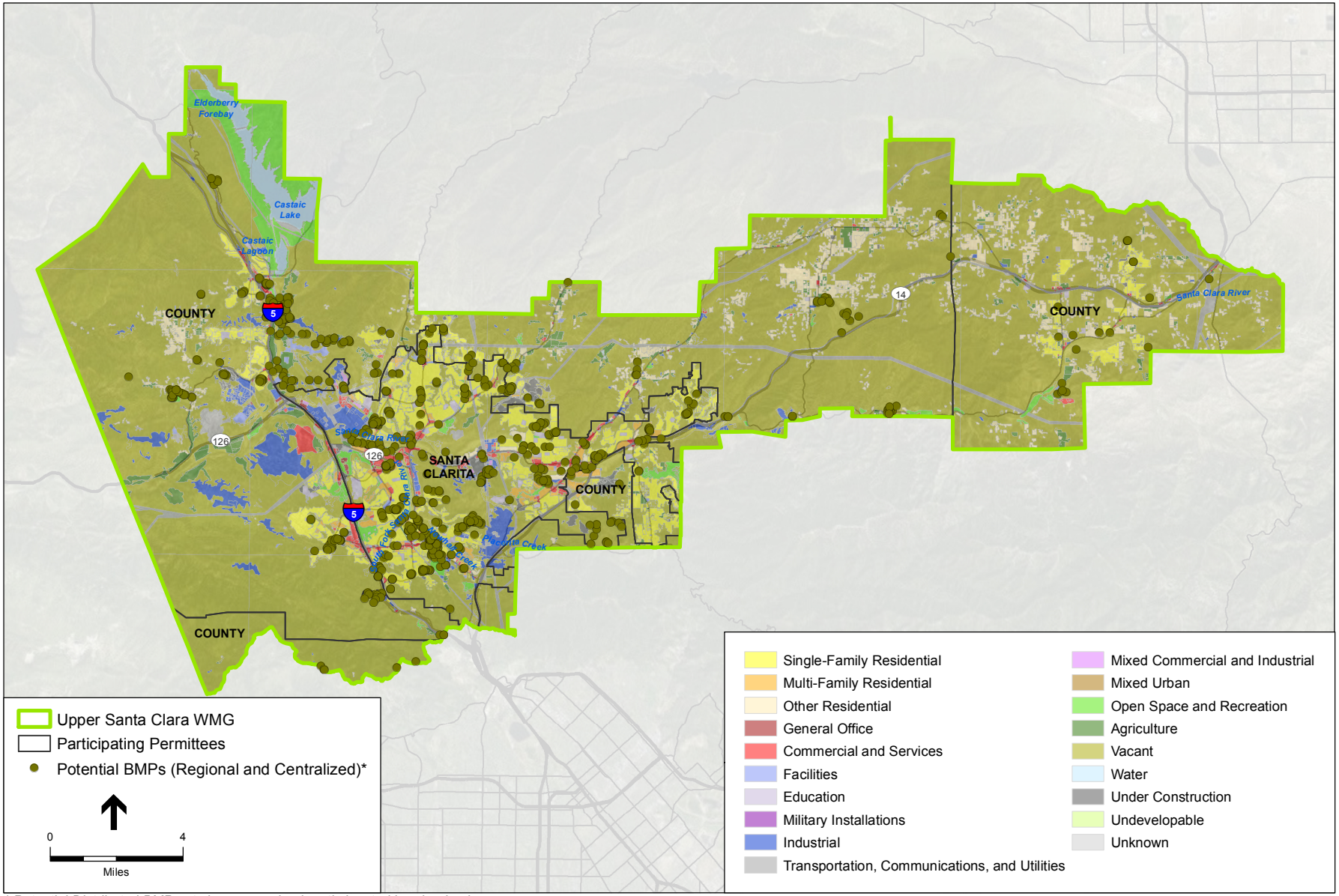
** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: ESRI; SCAG

LA County PEIR EWMP . 140474

Figure 3.9-11

Land Use in the Upper San Gabriel River Watershed Management Group



** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: ESRI

LA County PEIR EWMP . 140474

Figure 3.9-12

Land Use in Upper Santa Clara River Watershed Management Group

Habitat Conservation Plan

There is one adopted habitat conservation plan area within the EWMP watershed areas: the Palos Verdes Peninsula Natural Communities Conservation Plan (NCCP)/Habitat Conservation Plan (HCP). The Palos Verdes Peninsula NCCP/HCP is within the Palos Verdes Peninsula EWMP area. The Palos Verdes Peninsula NCCP/HCP covers the city of Rancho Palos Verdes, which is approximately 8,600 acres. The Rancho Palos Verdes City Council adopted the NCCP/HCP in 2004.

The City of Rancho Palos Verdes NCCP Subarea Plan (Subarea Plan) was prepared to maximize benefits to wildlife and vegetation communities while accommodating appropriate economic development within the city and region pursuant to the requirements of the NCCP Act and Section 10(a) of the Endangered Species Act (URS, 2004). The Subarea Plan provides for the comprehensive management and conservation of multiple species. The subarea is unique in that it contains healthy concentrations of coastal sage scrub habitat (approximately 1,000 acres) and a number of coastal sage scrub species that are not found in other Southern California coastal sage scrub communities.

Agriculture

The County of Los Angeles contains very little agricultural or forest land, as the majority of the land is urbanized. The watersheds in the northwestern corner of the County along the coast contain land designated as Farmland of Local Potential by the California Department of Conservation. This type of land is primarily located in the North Santa Monica Bay Coastal and the Malibu Creek Watersheds, with some located within the Upper Los Angeles River Watershed and the Upper Santa Clara River Watershed. The Upper Santa Clara River Watershed, covering the northwestern and northernmost borders of the County, contains large areas of Grazing Land and Farmland of Local Potential, and tiny pockets of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland.

The only Williamson Act contracts in effect in Los Angeles County are for land on Santa Catalina Island (Los Angeles County, 2014), which is not located within the EWMP group areas.

To the north of the Los Angeles River EWMP group is the Angeles National Forest, which offers outdoor activities such as hiking trails, campgrounds, and picnic areas. Angeles National Forest covers approximately 1,024 square miles just outside of the highly urbanized cities of Los Angeles County. While it is very close, it is not inside the Los Angeles River EWMP group boundary.

3.9.2 Regulatory Setting

State

California Coastal Commission

The California Coastal Commission (CCC) is a state agency that works in conjunction with local cities and counties to plan and regulate the use of land and water in the coastal zone. The coastal zone covers the entire shoreline of California and varies in width depending on the region. The CCC regulates development activities in the coastal zone. The CCC was established by the California Coastal Act of 1976. Local Coastal Programs (LCPs) are approved by the CCC to allow local jurisdictions to guide development in the coastal zone. LCPs require a Coastal Development Permit (CDP) for development in the coastal zone.

Southern California Association of Governments Regional Comprehensive Plan

SCAG is the federally mandated Metropolitan Planning Organization representing six counties: Los Angeles, Imperial, Orange, Riverside, San Bernardino, and Ventura. The SCAG Regional Comprehensive Plan addresses important regional issues such as housing, traffic/transportation, water, and air quality and serves as an advisory planning document to support and encourage local agencies in their planning efforts.

California Farmland Mapping and Monitoring Program

The California Department of Conservation, under the Division of Land Resource Protection, has established the Farmland Mapping and Monitoring Program. The Farmland Mapping and Monitoring Program monitors the conversion of the state's farmland to and from agricultural use and reports on the amount of land converted from agricultural to non-agricultural use. The Farmland Mapping and Monitoring Program maintains an inventory of state agricultural land and updates its "Important Farmland Series Maps" every 2 years (California Department of Conservation, 2007). Important farmlands are divided into the following five categories on Farmland Mapping and Monitoring Program maps based on their suitability for agriculture:

- **Prime Farmland.** Prime Farmland is land with the best combination of physical and chemical characteristics able to sustain long-term production of agricultural crops. This land has produced irrigated crops at some time within the four years prior to the mapping date.
- **Farmland of Statewide Importance.** Farmland of Statewide Importance is land that meets the criteria for Prime Farmland but with minor shortcomings such as greater slopes or lesser soil moisture capacity.
- **Unique Farmland.** Unique Farmland has even lesser quality soils and produces the state's leading agricultural crops. This land is usually irrigated but also includes non-irrigated orchards and vineyards.

- **Farmland of Local Importance.** Farmland of Local Importance is land that is important to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.
- **Grazing Land.** Grazing Land is land on which the existing vegetation is suited to the grazing of livestock.

Local

County of Los Angeles Low Impact Development Manual

The County of Los Angeles (County) prepared the 2014 Low Impact Development Standards Manual (LID Standards) to comply with the requirements of the National Pollutant Discharge Elimination System (NPDES) MS4 Permit for stormwater and non-stormwater discharges from the MS4 within the coastal watersheds of Los Angeles County (CAS004001, Order No. R4-2012-0175), referred to as the 2012 MS4 Permit (County of Los Angeles, 2014b). The LID Standards provide guidance for the implementation of stormwater quality control measures in new development and redevelopment projects in unincorporated areas of the County with the intention of improving water quality and mitigating potential water quality impacts from stormwater and non-stormwater discharges. The November 2013 LID Ordinance became effective December 5, 2013.

City of Los Angeles Low Impact Development Manual

In November 2011, the City of Los Angeles adopted the Stormwater Low Impact Development (LID) Ordinance #181899) with the stated purpose of:

- Requiring the use of LID standards and practices in future developments and redevelopments to encourage the beneficial use of rainwater and urban runoff
- Reducing stormwater/urban runoff while improving water quality
- Promoting rainwater harvesting
- Reducing offsite runoff and providing increased groundwater recharge
- Reducing erosion and hydrologic impacts downstream
- Enhancing the recreational and aesthetic values in our communities

The City of Los Angeles institutionalized the use of LID techniques for development and redevelopment projects. Subsequent to the adoption of the Stormwater LID Ordinance, the City prepared the *Development Best Management Practices Handbook, Low Impact Development Manual,* dated June 2011, to describe the required BMPs (City of Los Angeles, 2011).

Other Cities LID

Various other cities within the County also have LID standards or guidance. The goals, objectives, and content of the LID document are similar to that of the County and City of Los Angeles, and are not referenced here.

County of Los Angeles General Plan

A General Plan is a basic planning document that, alongside the zoning code, governs development in a city or county. The State requires each city and county to adopt a General Plan with seven mandatory elements: land use, open space, circulation, housing, noise, conservation, and safety, along with any number of optional elements as appropriate. The proposed EWMPs would be subject to local plans and policies of the areas in which they are located. Because this is a high-level assessment of projects spanning the entire County, this Program Environmental Impact Report (PEIR) will only discuss County-level goals and policies relating to the overall program.

The County of Los Angeles is currently updating their General Plan from the version adopted in 1980; the new comprehensive plan is expected to be complete by late 2014. Below are land use and agriculture goals and policies from both the existing General Plan and the Draft General Plan 2035 (as of August 2014) which relate to the proposed program.

Existing General Plan, Adopted 1980

Goal – Conserve Resources and Enhance Environmental Quality: Increasing pressures for urban expansion into outlying areas of significant ecological and scenic resources require that effective measures be taken to conserve and enhance our most valuable natural assets.

Policy 20: Establish land use controls that afford effective protection for significant ecological and habitat resources, and lands of major scenic value.

Policy 21: Protect identified Potential Agricultural Preserves by discouraging inappropriate land division and allowing only use types and intensities compatible with agriculture.

Policy 22: In non-urban areas outside of Potential Agricultural Preserves, encourage the retention and expansion of agriculture by promoting compatible land use arrangements and providing technical assistance to involved farming interests.

Policy 23: In urban areas, encourage the retention of economically viable agricultural production, e.g., high value crops such as strawberries, cut flowers, nursery stock, etc., through the identification and mitigation of significant adverse impacts resulting from adjacent new development.

Goal – Improve the Land Use Decision-Making Process: The manner in which land use decisions are made must address cumulative social, economic and environmental effects, and ensure opportunity for citizen participation.

Policy 29: Improve the land use decision-making process by closely monitoring and evaluating the cumulative impacts of individual projects and by modernizing development regulations

Goal – Improve Inter-Agency Coordination in Land Use Planning: There is a growing need to more effectively coordinate the land use planning activities of local, regional, State, and federal agencies in Los Angeles County.

Policy 30: Promote improved interjurisdictional coordination of land use policy matters between the County, cities, adjacent counties, special districts, and regional and subregional agencies.

Policy 31: Ensure that cities have a voice in land use decisions within their adopted spheres of influence.

Draft General Plan, Drafted 2014

Goal LU 2: Community-based planning efforts that implement the General Plan and incorporate public input, and regional and community level collaboration.

Policy LU 2.8: Coordinate with the Los Angeles County Department of Public Works and other infrastructure providers to analyze and assess infrastructure improvements that are necessary for plan implementation.

Goal LU 8: Well-designed and healthy places that support a diversity of built environments.

Policy LU 8.2: Design development adjacent to natural features in a sensitive manner to complement the natural environment.

Policy LU 8.4: Promote environmentally sensitive and sustainable design.

Goal M-7: Transportation networks that minimizes negative impacts to the environment and communities.

Policy M 7.1: Encourage the use of natural systems to treat stormwater and rainwater runoff.

Policy M 7.2: Minimize roadway runoff through the use of permeable surface materials, such as porous asphalt and concrete materials, wherever feasible.

Goal C/NR-5: Protected and useable local surface water resources.

Policy C/NR 5.1: Support the LID philosophy, which seeks to plan and design public and private development with hydrologic sensitivity, including limits to straightening and channelizing natural flow paths, removal of vegetative cover, compaction of soils, and distribution of naturalistic BMPs at regional, neighborhood, and parcel-level scales.

Policy C/NR 5.2: Require compliance by all County departments with adopted Municipal Separate Storm Sewer System (MS4), General Construction, and point source NPDES permits.

Policy C/NR 5.3: Actively engage with stakeholders in the formulation and implementation of surface water preservation and restoration plans, including plans to improve impaired surface water bodies by retrofitting tributary watersheds with LID types of BMPs.

Policy C/NR 5.4: Actively engage in implementing all approved Enhanced Watershed Management Programs/Watershed Management Programs and Coordinated Integrated Monitoring Programs/Integrated Monitoring Programs or other County-involved TMDL implementation and monitoring plans.

Policy C/NR 5.6: Minimize point and non-point source water pollution.

Policy C/NR 5.7: Actively support the design of new and retrofit of existing infrastructure to accommodate watershed protection goals, such as roadway, railway, bridge, and other—particularly—tributary street and greenway interface points with channelized waterways.

Goal C/NR-6: Protected and usable local groundwater resources.

Policy C/NR 6.1: Support the LID philosophy, which incorporates distributed, post-construction parcel-level stormwater infiltration as part of new development.

Policy C/NR 6.2: Protect natural groundwater recharge areas and regional spreading grounds.

Policy C/NR 6.3: Actively engage in stakeholder efforts to disperse rainwater and stormwater infiltration BMPs at regional, neighborhood, infrastructure, and parcel-level scales.

Policy C/NR 6.5: Prevent stormwater infiltration where inappropriate and unsafe, such as in areas with high seasonal groundwater, on hazardous slopes, within 100 feet of drinking water wells, and in contaminated soils.

Goal C/NR 7: Protected and healthy watersheds.

Policy C/NR 7.1: Support the LID philosophy, which mimics the natural hydrologic cycle using undeveloped conditions as a base, in public and private land use planning and development design.

Policy C/NR 7.2: Support the preservation, restoration and strategic acquisition of open space to preserve natural streams, drainage paths, wetlands, and rivers, which are necessary for the healthy function of watersheds.

Policy C/NR 7.3: Actively engage with stakeholders to incorporate the LID philosophy in the preparation and implementation of watershed and river master plans, ecosystem restoration projects, and other related natural resource conservation aims, and support the implementation of existing efforts,

including Watershed Management Programs and Enhanced Watershed Management Programs.

Policy C/NR 7.4: Promote the development of multi-use regional facilities for stormwater quality improvement, groundwater recharge, detention/attenuation, flood management, retaining non-stormwater runoff, and other compatible uses..

City General Plans

The numerous cities encompassed by the EWMP area all have their own respective city General Plans, which may contain policies that address land use and agriculture. As implementation of the individual structural BMP projects proceed, specific policies and objectives pertaining to land use and agriculture from applicable city General Plans will be identified and evaluated on a project-by-project basis during subsequent CEQA environmental processes.

3.9.3 Impact Assessment

The proposed program's potential impacts have been assessed using the CEQA Guidelines Appendix G Checklist. The following sections discuss the key issue areas identified in the CEQA Guidelines with respect to the program's potential effect to agricultural resources and land use.

Threshold of Significance

For the purposes of this PEIR and consistency with Appendix G of the CEQA Guidelines, the program would have a significant impact on land uses if it would:

- Physically divide an established community.
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.
- Conflict with any applicable habitat conservation plan or natural community conservation plan.

The program would have a significant impact on agriculture land uses if it would:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.
- Conflict with existing zoning for agricultural use, or a Williamson Act contract.
- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)).
- Result in the loss of forest land or conversion of forest land to non-forest use.

- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

The significance determination for the above-listed impact thresholds is based on both short-term and long-term impacts of project implementation.

Project Impact Discussion

Division of an Established Community

Impact 3.9-1: The proposed program could physically divide an established community.

Structural (Regional, Centralized, and Distributed) BMPs

Distributed BMPs are most likely to be implemented in high-density urban, commercial, industrial, and transportation areas where they would either replace or improve upon existing stormwater infrastructure. These types of BMPs are generally "retrofit" type projects that replace existing impervious surfaces with pervious surfaces such as bioinfiltration cells, bioswales, porous pavement, and filter strips that tie into existing stormwater management systems. These projects may also augment the existing stormwater management systems with additional inlet screens, filter media systems, sediment removal systems, and diversions to sanitary sewer lines. Ground disturbance for distributed BMPs is typically less than 1 to 2 acres in extent, but may extend in some limited applications up to 5 acres where space is available, generally on municipally owned lands such as parks and schools, which would not divide a community.

Centralized structural BMPs collect, store, treat, and filter stormwater from multiple parcels and much larger drainage areas. Like centralized BMPs, regional BMPs can be implemented in a broad range of land use types, from high-density urban to open space, and can have multiple benefits (habitat, recreation, aesthetics, etc.). Centralized and regional structural BMPs require greater footprints for construction and implementation. However, the installation of these larger BMPs would not physically divide an established community as they would be implemented primarily on existing sidewalks, streets, parks, and city-owned lands. The BMPs would augment the physical structure of established communities, blending in as part of the existing landscape; enhancing water quality of existing communities. Additionally, much of the implementation would consist of the retrofitting of already-established stormwater infrastructure, and would not physically divide an established community. No impact would occur.

Mitigation Measures: None required

Significance Determination: No impact

Non-Structural (Institutional) BMPs

The non-structural BMPs associated with the proposed program would not consist of structural components; these BMPs would include programs, actions, and activities to eliminate pollutants from stormwater runoff, none of which would contribute to the physical division of a community. Therefore, non-structural BMPs would not have a physical impact on the built environment.

Mitigation Measures: None required

Significance Determination: No impact

Land Use Plan, Policy or Regulation Confliction

Impact 3.9-2: The proposed program could conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the program (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

Structural (Regional, Centralized, and Distributed) BMPs

Structural BMPs would be located throughout Los Angeles County, spanning multiple jurisdictions within varying land uses. Each BMP would be subject to land use zoning and General Plan designations adopted by the local municipality or the County. Implementing agencies will identify appropriate locations based on the local zoning codes. Some BMPs may require easements, conditional use permits, variances, or General Plan amendments. Approval by local jurisdictions of these land use conditions would ensure consistency with local plans. The structural BMPs associated with the proposed program would complement the Los Angeles County's LID Ordinance that became effective December 5, 2013. The LID Standards provide guidance for the implementation of stormwater quality control measures in new development and redevelopment projects in unincorporated areas of the County with the intention of improving water quality and mitigating potential water quality impacts from stormwater and non-stormwater discharges. The proposed EWMP Program would implement LID techniques throughout the urbanized landscape via the implementation of distributed BMPs, as such; the implementation of structural BMPs would support implementation of the County's LID Ordinance.

The structural BMPs associated with the proposed program would complement the Los Angeles County's land use goals and policies for the built environment including conserving resources and enhancing environmental quality (goal from 1980 General Plan), creating well-designed and healthy places that support a diversity of built environments (Goal LU 8), supporting transportation networks that minimize negative impacts to the environment and communities, which includes encouraging the use of natural systems to treat stormwater runoff, and minimizing roadway runoff through the use of permeable surface materials wherever feasible, protecting local surface water resources (Goal C/NR 5), protecting local groundwater sources (Goal C/NR 6), and creating protected and healthy watersheds (Goal C/NR 7). These goals would be supported by the proposed project because they would not change land uses and would implement BMPs to support protection of important water resources in a way that would minimize the impact of the land use on the environment. The proposed water conservation and water quality projects included as part of the proposed program would align with the County LID standards, which call for projects to mimic naturally occurring runoff conditions, as best as possible.

Implementation of BMPs to enhance water quality in the region would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect.

Mitigation Measures: None required

Significance Determination: No impact

Non-Structural (Institutional) BMPs

Non-structural BMPs associated with the proposed program include policies, actions and activities intended to prevent pollutants from entering stormwater runoff, thus eliminating the sources of the pollutants. The non-structural BMPs would not physically change the built environment, and would implement further policies and actions to protect stormwater runoff from pollution.

Mitigation Measures: None required

Significance Determination: No impact

Habitat Conservation Plan Or Natural Community Conservation Plan Confliction

Impact 3.9-3: The proposed program could conflict with any applicable habitat conservation plan or natural community conservation plan.

Structural (Regional, Centralized, and Distributed) BMPs

Only one HCP/NCCP has been adopted within the EWMP areas. The City of Rancho Palos Verdes NCCP Subarea Plan (Subarea Plan) was prepared to maximize benefits to wildlife and vegetation communities while accommodating appropriate economic development within the city and region pursuant to the requirements of the NCCP Act and Section 10(a) of the ESA (URS, 2004). The BMPs would be located primarily in high-density urban, commercial, industrial, and transportation areas, where they would either replace or improve upon existing stormwater infrastructure. BMPs proposed within the HCP/NCCP would be required to comply with the adopted plan. This would include avoiding impacts to coastal sage scrub habitat. The goals of the EWMP and the HCP are consistent and conflicts would be avoided through site placement, BMP type, and City of Rancho Palos Verde approval.

Mitigation Measures: None required

Significance Determination: Less than significant

Non-Structural (Institutional) BMPs

The non-structural BMPs associated with the proposed program are program- and policy-based and do not involve physical structures, so they would not introduce any physical impacts to the built environment. The project areas is located primarily in developed areas of Los Angeles

County, and would not take place within an HCP, NCCP, or any other conservation plan-covered area. There would be no impact.

Mitigation Measures: None required

Significance Determination: No impact

Agricultural and Forestry Resources

Impact 3.9-4: The proposed program could convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. The proposed program could involve other changes in the existing environment which, due to their location or nature, could result in conversion of agricultural land to non-agricultural use or conversion of forest land to non-forest use.

Structural (Regional, Centralized, and Distributed) BMPs

Only small areas of Designated Prime, Unique and Important Farmlands exist within the EWMP area, limited to the Santa Clara and Malibu Watersheds. The structural BMPs associated with the proposed program would not convert any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural uses because the BMPs would be located primarily in high-density urban, commercial, industrial, and transportation areas where they would either replace or improve upon existing stormwater infrastructure. The construction of structural BMPs would primarily focus on the retrofitting of existing infrastructure, and would be located on existing streets, sidewalks, and parks. The larger regional and centralized projects would be located in parks and open space areas that may be adjacent to or on farmland. However, none of the BMPs would replace designated Prime, Unique, or Important Farmland. There would be no impact to farmland.

Mitigation Measures: None required

Significance Determination: No impact

Non-Structural (Institutional) BMPs

Non-structural BMPs would consist of policies and programs that would not be physically constructed and would not involve or contribute to the conversion of agricultural land to non-agricultural uses. There would be no impact.

Mitigation Measures: None required

Significance Determination: No impact

Existing Agricultural Zoning or Williamson Act Contract Confliction

Impact 3.9-5: The proposed program could conflict with existing zoning for agricultural use, or a Williamson Act contract.

Structural (Regional, Centralized, and Distributed) BMPs

The structural BMPs associated with the proposed program would be constructed on urbanized land primarily on streets, sidewalks, and in parks or other city-owned lands, and would therefore not conflict with existing land zoned for agricultural use. There are no Williamson Act contracts within the project area. As a result, there would be no impacts to existing agricultural zoning or land under the Williamson Act contract.

Mitigation Measures: None required

Significance Determination: No impact

Non-Structural (Institutional) BMPs

The non-structural BMPs associated with the proposed program would not require any physical construction and would be implemented in primarily urbanized areas; therefore, they would have no impact on agriculturally-zoned land. There are no Williamson Act contracts within the project area.

Mitigation Measures: None required

Significance Determination: No impact

Forest Land Confliction

Impact 3.9-6: The proposed program could conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)). The proposed program could result in the loss of forest land or conversion of forest land to non-forest use.

Structural (Regional, Centralized, and Distributed) BMPs

The structural BMPs associated with the proposed program would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production, and would not result in the loss of forest land or conversion of forest land to non-forest land because there is no land within the EWMP groups zoned as forest land or timberland. The structural BMPs would be constructed and implemented primarily on urbanized land primarily on streets, sidewalks, and in parks or other city-owned lands, and would therefore have no impact on forest land, timberland, or timberland zoned Timberland Production.

Mitigation Measures: None required

Significance Determination: No impact

Non-Structural (Institutional) BMPs

The non-structural BMPs associated with the proposed program would not involve any physical construction and would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. Implementation of the non-structural BMPs would not result in the loss of forest land or conversion of forest land to non-forest use.

Mitigation Measures: None required

Significance Determination: No impact

Cumulative Impact Discussion

Structural (Regional, Centralized, and Distributed) BMPs

No land use planning impacts have been identified in this analysis as a result of the structural BMPs associated with the proposed program because the EWMPs would be implemented in already established urban areas. BMP locations would be required to be consistent with local zoning and General Plan designations. Furthermore, the BMPs would be supportive of LID Ordinance goals and objectives. The incremental effect on cumulative land use and planning during construction and operation of the proposed program would be less than significant. Therefore, the contribution is not cumulatively considerable and would not result in a cumulative impact on land use and planning. Furthermore, the proposed program would not impact agricultural and forest lands since structural BMPs would be implemented largely in urbanized areas and focus on improving existing facilities. Therefore, the contribution is not cumulatively considerable and would not result in a cumulative impact on agricultural resources.

Mitigation Measures: None required

Significance Determination: Less than significant

Non-Structural (Institutional) BMPs

No land use planning impacts have been identified in this analysis as a result of the non-structural BMPs associated with the proposed EWMPs because there is no physical construction associated with these BMPs. The non-structural BMPs will consist of policies, actions, and activities to help prevent pollutants from entering stormwater runoff. They will likely provide improvements to existing land uses because their primary goal will be to improve water quality. One major purpose of the non-structural BMPs is to meet Minimum Control Measure (MCM) requirements in the MS4 Permit. Therefore, the proposed program is not cumulatively considerable and would not result in a cumulative impact on land use and planning. Furthermore, the proposed program would not impact agricultural and forest lands since there would be no physical construction associated with these BMPs. Therefore, the non-structural BMPs are not cumulatively considerable and would not result in a cumulative impact on agricultural resources.

Mitigation Measures: None required

Significance Determination: Less than significant

3.9.4 Summary of Impact Assessment

Table 3.9-16 shows a summary of the structural BMPs requiring mitigation.

TABLE 3.9-16
SUMMARY OF LAND USE AND AGRICULTURE IMPACTS REQUIRING MITIGATION MEASURES

	Thresholds of Significance						
Structural BMPs	**Division of an Established Community**	**Land Use Plan, Policy or Regulation Confliction**	**Habitat Conservation Plan Confliction**	**Agricultural and Forestry Resources**	**Existing Agricultural Zoning or Williamson Act Contract Confliction**	**Forest Land Confliction**	**Cumulative Impacts**
Applicable Mitigation Measures:	**None Required**	**None Required**	**None Required**	**None Required**	**None Required**	**None Required**	**None Required**
Regional BMPs							
Regional Detention and Infiltration	No	No	No	No	No	No	No
Regional Capture, Detention, and Use	No	No	No	No	No	No	No
Centralized BMP							
Bioinfiltration	No	No	No	No	No	No	No
Constructed Wetlands	No	No	No	No	No	No	No
Treatment/Low-Flow Diversions	No	No	No	No	No	No	No
Creek, River, Estuary Restoration	No	No	No	No	No	No	No
Distributed BMPs							
Site-Scale Detention	No	No	No	No	No	No	No
LID – Infiltration/Filtration BMPs – Porous Pavement, Green Streets, Bioswale/Filter Strips, Downspout Disconnects	No	No	No	No	No	No	No
LID – Green Infrastructure – Capture and Use – Cisterns, Rain Barrels, Green roofs, Planter Boxes	No	No	No	No	No	No	No
Flow-through Treatment BMPs	No	No	No	No	No	No	No
Source Control Treatment BMPs (catch basin inserts/screens, hydrodynamic separators, gross solids removal devices)	No	No	No	No	No	No	No
Low-Flow Diversions	No	No	No	No	No	No	No

NOTE: These conclusions are based on typical BMP size and location.

3.10 Noise

This section evaluates the potential for noise and groundborne vibration impacts to result from implementation of the proposed Enhanced Watershed Management Program (EWMP). This includes the potential for the proposed program to result in impacts associated with a substantial temporary and/or permanent increase in ambient noise levels in the vicinity of the proposed program; exposure of people in the vicinity of the proposed program to excessive noise and groundborne vibration levels; and whether this exposure is in excess of applicable, established standards in the EWMP areas of Los Angeles County (County). Mitigation measures to reduce potential noise and vibration impacts are identified, where warranted.

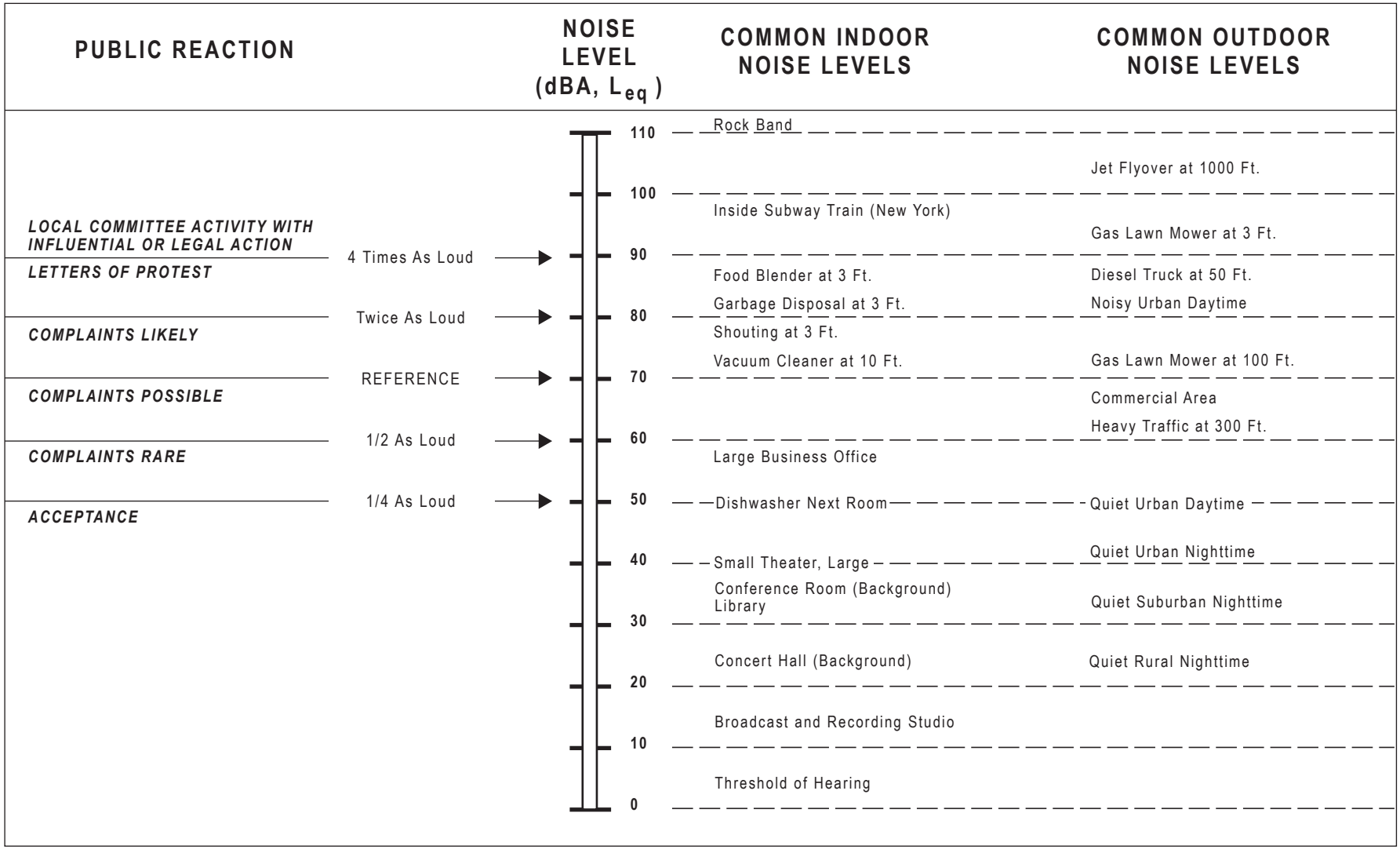
3.10.1 Principles of Noise and Vibration

Noise Principles and Descriptors

Noise is generally defined as unwanted sound, traveling in the form of waves from a source and exerting a sound pressure level (referred to as sound level) that is measured in decibels (dB), which is the standard unit of sound amplitude measurement. The dB scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound, with 0 dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain. Pressure waves traveling through air exert a force registered by the human ear as sound.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude. When all the audible frequencies of a sound are measured, a sound spectrum is plotted consisting of a range of frequency spanning 20 to 20,000 Hz. The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the sound frequency/sound power level spectrum.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that deemphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to extremely low and extremely high frequencies. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA). A-weighting follows an international standard methodology of frequency deemphasis and is typically applied to community noise measurements. Some representative noise sources and their corresponding A-weighted noise levels are shown in **Figure 3.10-1**.



SOURCE: ESA

LA County PEIR EWMP . 140474

Figure 3.10-1
Effects of Noise on People

Noise Exposure and Community Noise

An individual's noise exposure is a measure of noise over a period of time. A noise level is a measure of noise at a given instant in time. The noise levels presented in Figure 3.10-1 are representative of measured noise at a given instant in time; however, they rarely persist consistently over a long period of time. Rather, community noise varies continuously over a period of time with respect to the contributing sound sources of the community noise environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with the individual contributors unidentifiable. The background noise level changes throughout a typical day, but does so gradually, corresponding with the addition and subtraction of distant noise sources such as traffic. What makes community noise constantly variable throughout a day, besides the slowly changing background noise, is the addition of short duration, single-event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual.

These successive additions of sound to the community noise environment change the community noise level from instant to instant, thus requiring that noise exposure be measured over a period of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts. This time-varying characteristic of environmental noise is described using statistical noise descriptors. The most frequently used noise descriptors are summarized below:

L_{eq}: The L_{eq}, or equivalent sound level, is used to describe noise over a specified period of time in terms of a single numerical value; the L_{eq} of a time-varying signal and that of a steady signal are the same if they deliver the same acoustic energy over a given time. The L_{eq} may also be referred to as the average sound level.

L_{max}: The maximum, instantaneous noise level experienced during a given period of time.

L_{min}: The minimum, instantaneous noise level experienced during a given period of time.

L_{50}: The noise level that is equaled or exceeded 50 percent of the specified time period. The L_{50} represents the median sound level.

L_{90}: The noise level that is equaled or exceeded 90 percent of the specified time period. The L_{90} is generally considered to be representing the background or ambient level of a noise environment.

L_{dn}: Also termed the day-night average noise level (DNL), the L_{dn} is the average A-weighted noise level during a 24-hour day, obtained after an addition of 10 dBA to measured noise levels between the hours of 10:00 P.M. and 7:00 A.M. to account nighttime noise sensitivity.

CNEL: CNEL, or Community Noise Equivalent Level, is the average A-weighted noise level during a 24-hour day that is obtained after an addition of 5 dBA to measured noise levels between the hours of 7:00 P.M. and 10:00 P.M. and after an addition of 10 dBA to noise levels between the hours of 10:00 P.M. and 7:00 A.M. to account for noise sensitivity in the evening and nighttime, respectively.

Effects of Noise on People

Noise is generally loud, unpleasant, unexpected, or undesired sound that is typically associated with human activity that is a nuisance or disruptive. The effects of noise on people can be placed into four general categories:

- Subjective effects (e.g., dissatisfaction, annoyance)
- Interference effects (e.g., communication, sleep, and learning interference)
- Physiological effects (e.g., startle response)
- Physical effects (e.g., hearing loss)

Although exposure to high noise levels has been demonstrated to cause physical and physiological effects, the principal human responses to typical environmental noise exposure are related to subjective effects and interference with activities. Interference effects of environmental noise refer to those effects that interrupt daily activities and include interference with human communication activities, such as normal conversations, watching television, telephone conversations, and interference with sleep. Sleep interference effects can include both awakening and arousal to a lesser state of sleep. With regard to the subjective effects, the responses of individuals to similar noise events are diverse and are influenced by many factors, including the type of noise, the perceived importance of the noise, the appropriateness of the noise to the setting, the duration of the noise, the time of day and the type of activity during which the noise occurs, and individual noise sensitivity.

Overall, there is no completely satisfactory way to measure the subjective effects of noise, or the corresponding reactions of annoyance and dissatisfaction on people. A wide variation in individual thresholds of annoyance exists, and different tolerances to noise tend to develop based on an individual's past experiences with noise. Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted (i.e., comparison to the ambient noise environment). In general, the more a new noise level exceeds the previously existing ambient noise level, the less acceptable the new noise level will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships generally occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived.
- Outside of the laboratory, a 3 dBA change in noise levels is considered to be a barely perceivable difference.
- A change in noise levels of 5 dBA is considered to be a readily perceivable difference.
- A change in noise levels of 10 dBA is subjectively heard as doubling of the perceived loudness.

These relationships occur in part because of the logarithmic nature of sound and the decibel system. The human ear perceives sound in a nonlinear fashion; hence, the decibel scale was developed.

Because the decibel scale is based on logarithms, two noise sources do not combine in a simple additive fashion, but rather logarithmically. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA.

Noise Attenuation

Stationary point sources of noise, including stationary mobile sources such as idling vehicles, attenuate (lessen) at a rate between 6 dBA for hard sites and 7.5 dBA for soft sites for each doubling of distance from the reference measurement. Hard sites are those with a reflective surface between the source and the receiver, such as asphalt or concrete surfaces or smooth bodies of water. No excess ground attenuation is assumed for hard sites and the change in noise levels with distance (drop-off rate) is simply the geometric spreading of the noise from the source. Soft sites have an absorptive ground surface such as soft dirt, grass, or scattered bushes and trees. In addition to geometric spreading, an excess ground attenuation value of 1.5 dBA (per doubling distance) is normally assumed for soft sites. Line sources (such as traffic noise from vehicles) attenuate at a rate between 3 dBA for hard sites and 4.5 dBA for soft sites for each doubling of distance from the reference measurement (Caltrans, 1998).

Fundamentals of Vibration

As described in the Federal Transit Administration's (FTA's) *Transit Noise and Vibration Impact Assessment* (FTA, 2006), groundborne vibration can be a serious concern for nearby neighbors of a transit system route or maintenance facility, causing buildings to shake and rumbling sounds to be heard. In contrast to airborne noise, groundborne vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of groundborne vibration are trains, buses on rough roads, and construction activities such as blasting, pile-driving, and operation of heavy earthmoving equipment.

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings. The root mean square (RMS) amplitude is most frequently used to describe the effect of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (VdB) is commonly used to measure RMS. The relationship of PPV to RMS velocity is expressed in terms of the "crest factor," defined as the ratio of the PPV amplitude to the RMS amplitude. PPV is typically a factor of 1.7 to 6 times greater than RMS vibration velocity (FTA, 2006). The decibel notation acts to compress the range of numbers required to describe vibration. Typically, groundborne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receptors for vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration-sensitive equipment.

The effects of groundborne vibration include movement of the building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. In extreme cases, the vibration can cause damage to buildings. Building damage is not a factor for most

projects, with the occasional exception of blasting and pile-driving during construction. Annoyance from vibration often occurs when the vibration levels exceed the threshold of perception by only a small margin. A vibration level that causes annoyance will be well below the damage threshold for normal buildings. The FTA measure of the threshold of architectural damage for conventional sensitive structures is 0.2 in/sec PPV (FTA, 2006).

In residential areas, the background vibration velocity level is usually around 50 VdB (approximately 0.0013 in/sec PPV). This level is well below the vibration velocity level threshold of perception for humans, which is approximately 65 VdB. A vibration velocity level of 75 VdB is considered to be the approximate dividing line between barely perceptible and distinctly perceptible levels for many people (FTA, 2006).

3.10.2 Environmental Setting

Existing Noise Sources

As the EWMP areas are located throughout Los Angeles County, existing noise levels in the EWMP areas would consist of various noise sources typically associated with highly urbanized environments. These noise sources commonly include, but are not limited to, traffic, construction work, commercial operations, human activities, emergency vehicles, aircraft overflights, etc. Of these sources, transportation-related noise associated with vehicular traffic is generally the constant, dominating noise source that comprises an urban environment's ambient noise levels. Vehicular traffic creates noise on roads and highways in residential, commercial, industrial, and mixed-use areas. Aside from vehicular traffic on roadways, other transportation-related noise sources include rail/urban transit systems and airports, which are also located throughout the County. Noise generated by stationary sources in an urban environment are generally associated with heating, ventilating, and air conditioning (HVAC) equipment for residential and commercial uses as well as other similar and larger mechanical stationary equipment for industrial uses. The use of larger-capacity stationary mechanical equipment by industrial uses generally results in higher noise levels in industrial-zoned areas when compared with residential or retail areas.

Existing Groundborne Vibration Levels

Aside from periodic construction work that may occur throughout the County where the EWMP areas are located, other sources of groundborne vibration in the County include heavy-duty vehicular travel (e.g., refuse trucks, delivery trucks, and transit buses) on local roadways. Trucks and buses traveling at a distance of 50 feet typically generate groundborne vibration velocity levels of around 63 VdB (approximately 0.006 in/sec PPV), and these levels could reach 72 VdB (approximately 0.016 in/sec PPV) where trucks pass over bumps in the road (FTA, 2006). In terms of PPV levels, a heavy-duty vehicle traveling at a distance of 50 feet can result in a vibration level of approximately 0.001 inch per second.

Sensitive Receptors

Noise-sensitive receptors are locations where people reside or where the presence of unwanted sound could adversely affect or disrupt the types of activities associated with the land use at the

location. Land uses such as residences, hotels, schools, rest homes, libraries, churches, and hospitals are generally more sensitive to noise than commercial and industrial land uses. As such, these types of land uses are considered to be noise-sensitive receptors. Given that the majority of the County is highly urbanized with a variety of land use types (e.g., open space, residential, commercial, mixed-use, public and semi-public, and industrial uses), and that the proposed program would be located in various watersheds across the County that span multiple jurisdictions, existing noise-sensitive uses such as residences, schools, guest lodging, hospitals, churches, parks, etc. would be located within and in proximity to the EWMP areas. As described in Section 3.9, *Land Use and Agriculture,* of this Program Environmental Impact Report (PEIR), many of the EWMP areas, including Ballona Creek, Beach Cities, Dominguez Channel, and Marina del Rey, have residential uses as the predominant land use.

3.10.3 Regulatory Setting

Federal

Federal Noise Standards

There are no federal noise standards that directly regulate environmental noise related to the construction or operation of the proposed program. With regard to noise exposure and workers, the Office of Safety and Health Administration (OSHA) regulations safeguard the hearing of workers exposed to occupational noise. Federal regulations also establish noise limits for medium and heavy trucks (more than 4.5 tons, gross vehicle weight rating) under 40 Code of Federal Regulations (CFR), Part 205, Subpart B. The federal truck pass-by noise standard is 80 dBA at 15 meters from the vehicle pathway centerline. These controls are implemented through regulatory controls on truck manufacturers.

Federal Transit Authority Vibration Standards

The FTA has adopted vibration standards that are used to evaluate potential building damage impacts related to construction activities. The vibration damage criteria adopted by the FTA are shown in **Table 3.10-1**.

TABLE 3.10-1
CONSTRUCTION VIBRATION DAMAGE CRITERIA

Building Category	PPV (in/sec)
I. Reinforced concrete, steel or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12

SOURCE: FTA, 2006.

In addition, the FTA has also adopted standards associated with human annoyance for groundborne vibration impacts for the following three land-use categories: Vibration Category 1 – High Sensitivity, Vibration Category 2 – Residential, and Vibration Category 3 – Institutional.

The FTA defines Category 1 as buildings where vibration would interfere with operations within the building, including vibration-sensitive research and manufacturing facilities, hospitals with vibration-sensitive equipment, and university research operations. Vibration-sensitive equipment includes, but is not limited to, electron microscopes, high-resolution lithographic equipment, and normal optical microscopes. Category 2 refers to all residential land uses and any buildings where people sleep, such as hotels and hospitals. Category 3 refers to institutional land uses such as schools, churches, other institutions, and quiet offices that do not have vibration-sensitive equipment, but still have the potential for activity interference.

Under conditions where there are an infrequent number of events per day, the FTA has established thresholds of 65 VdB for Category 1 buildings, 80 VdB for Category 2 buildings, and 83 VdB for Category 3 buildings.[1] Under conditions where there are an occasional number of events per day, the FTA has established thresholds of 65 VdB for Category 1 buildings, 75 VdB for Category 2 buildings, and 78 VdB for Category 3 buildings.[2] No thresholds have been adopted or recommended for commercial and office uses.

State

California Department of Health Services Noise Standards

The California Department of Health Services (DHS) has established guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. These guidelines for land use and noise exposure compatibility are shown in **Table 3.10-2**. In addition, Section 65302(f) of the California Government Code requires each county and city in the State to prepare and adopt a comprehensive long-range general plan for its physical development, with Section 65302(g) requiring a noise element to be included in the general plan. The noise element must: (1) identify and appraise noise problems in the community; (2) recognize Office of Noise Control guidelines; and (3) analyze and quantify current and projected noise levels.

The State of California also establishes noise limits for vehicles licensed to operate on public roads. For heavy trucks, the State pass-by standard is consistent with the federal limit of 80 dBA. The State pass-by standard for light trucks and passenger cars (less than 4.5 tons, gross vehicle rating) is also 80 dBA at 15 meters from the centerline. These standards are implemented through controls on vehicle manufacturers and by legal sanction of vehicle operators by state and local law enforcement officials.

1 "Infrequent events" is defined by the FTA as being fewer than 30 vibration events of the same kind per day.
2 "Occasional events" is defined by the FTA as between 30 and 70 vibration events of the same source per day.

TABLE 3.10-2
COMMUNITY NOISE EXPOSURE (L_{dn} OR CNEL)

Land Use	Normally Acceptable[a]	Conditionally Acceptable[b]	Normally Unacceptable[c]	Clearly Unacceptable[d]
Single-family, Duplex, Mobile Homes	50 - 60	55 - 70	70 - 75	above 75
Multi-Family Homes	50 - 65	60 - 70	70 - 75	above 75
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 - 70	60 - 70	70 - 80	above 80
Transient Lodging – Motels, Hotels	50 - 65	60 - 70	70 - 80	above 75
Auditoriums, Concert Halls, Amphitheaters	---	50 - 70	---	above 70
Sports Arena, Outdoor Spectator Sports	---	50 - 75	---	above 75
Playgrounds, Neighborhood Parks	50 - 70	---	67 - 75	above 75
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 - 75	---	70 - 80	above 80
Office Buildings, Business and Professional Commercial	50 - 70	67 - 77	above 75	---
Industrial, Manufacturing, Utilities, Agriculture	50 - 75	70 - 80	above 75	---

[a] Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

[b] Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

[c] Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

[d] Clearly Unacceptable: New construction or development should generally not be undertaken.

SOURCE: Office of Planning and Research, State of California Genera Plan Guidelines, October 2003 (in coordination with the California Department of Health Services).

State Vibration Standards

There are no state vibration standards applicable to the proposed program. Moreover, according to the California Department of Transportation's (Caltrans') *Transportation and Construction Vibration Guidance Manual* (2013), there are no official Caltrans standards for vibration. However, this manual provides guidelines for assessing vibration damage potential to various types of buildings, ranging from 0.08 to 0.12 in/sec PPV for extremely fragile historic buildings, ruins, and ancient monuments to 0.50 to 2.0 in/sec PPV for modern industrial/commercial buildings. The vibration criteria for structural damage and human annoyance established in Caltrans' *Transportation and Construction Vibration Guidance Manual* (2013) are shown in **Tables 3.10-3** and **3.10-4**, respectively.

TABLE 3.10-3
CALTRANS VIBRATION DAMAGE POTENTIAL THRESHOLD CRITERIA

	Maximum PPV (in/sec)	
Structure and Condition	**Transient Sources**	**Continuous/Frequent Intermittent Sources**
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

NOTE: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile-drivers, pogo-stick compactors, crack and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

SOURCE: Caltrans, Transportation and Construction Vibration Guidance Manual, September 2013.

TABLE 3.10-4
CALTRANS VIBRATION ANNOYANCE POTENTIAL CRITERIA

	Maximum PPV (in/sec)	
Structure and Condition	**Transient Sources**	**Continuous/Frequent Intermittent Sources**
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.10
Severe	2.0	0.4

NOTE: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile-drivers, pogo-stick compactors, crack and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

SOURCE: Caltrans, Transportation and Construction Vibration Guidance Manual, September 2013.

Local

County of Los Angeles General Plan Noise Element

The California Government Code Section 65302(g) requires that a noise element be included in the General Plan of each county and city in the state. The Noise Element of the County of Los Angeles General Plan was established as a planning tool to develop strategies and action programs that address the multitude of noise sources and issues throughout the County. The noise guidelines used by the County are based on the community noise compatibility guidelines established by the State of California DHS (refer to Table 3.10-2), as described above. Specific regulations that implement these guidelines are set forth in the Los Angeles County Municipal Code as discussed below.

County of Los Angeles Municipal Code

Chapter 12.08, Noise Control, of the County of Los Angeles Municipal Code serves as the Noise Ordinance for the County and establishes noise standards to control unnecessary, excessive, and annoying noise and vibration in the County. Within Chapter 12.08 of the Los Angeles County Code, Section 12.08.380 assigned the following noise zones for receptor properties in the County:

1. Noise Zone 1 – Noise-sensitive areas
2. Noise Zone 2 – Residential properties
3. Noise Zone 3 – Commercial properties
4. Noise Zone 4 – Industrial properties

With respect to operational noise, Section 12.08.390 of the Noise Ordinance established exterior noise levels that should be applied to all receptor properties within a designated noise zone in the County. These exterior noise levels are shown in **Table 3.10-5**.

TABLE 3.10-5
COUNTY OF LOS ANGELES EXTERIOR NOISE STANDARDS BY NOISE ZONES

Noise Zone	Designated Noise Zone Land Use (Receptor Property)	Time Interval	Exterior Noise Level (dBA)
I	Noise-sensitive area	Anytime	45
II	Residential properties	10:00 P.M. to 7:00 A.M. (nighttime)	45
		7:00 A.M. to 10:00 P.M. (daytime)	50
III	Commercial properties	10:00 P.M. to 7:00 A.M. (nighttime)	55
		7:00 A.M. to 10:00 P.M. (daytime)	60
IV	Industrial properties	Anytime	70

SOURCE: County of Los Angeles Ordinance No. 11743, Section 12.08.390.

The exterior noise levels shown in Table 3.10-5 are meant to be further applied as noise standards based on the duration of the noise; i.e., the louder the noise, the shorter the time it is allowed to last. The Noise Ordinance uses a number of noise metrics to define the permissible noise levels. These metrics include L_{50}, L_{25}, $L_{8.3}$, $L_{1.7}$, and L_{max}, and are based upon a 1-hour timeframe which indicates exceedances of 50, 25, 8.3, and 1.7 percent of the time, plus the maximum sound level during that time period. The following noise standards should be applied to the exterior noise levels provided in Table 3.10-5:

- Standard No. 1 shall be the exterior noise level that may not be exceeded for a cumulative period of more than 30 minutes in any hour. Standard No. 1 shall be the applicable noise

level from Table 3.10-5; or, if the ambient L_{50} exceeds the forgoing level, then the ambient L_{50} becomes the exterior noise level for Standard No. 1.

- Standard No. 2 shall be the exterior noise level that may not be exceeded for a cumulative period of more than 15 minutes in any hour. Standard No. 2 shall be the applicable noise level from Table 3.10-5 plus 5 dB(A); or, if the ambient L_{25} exceeds the forgoing level, then the ambient L_{25} becomes the exterior noise level for Standard No. 2.
- Standard No. 3 shall be the exterior noise level that may not be exceeded for a cumulative period of more than 5 minutes in any hour. Standard No. 3 shall be the applicable noise level from Table 3.10-5 plus 20 dB(A); or, if the ambient $L_{8.3}$ exceeds the forgoing level, then the ambient $L_{8.3}$ becomes the exterior noise level for Standard No. 3.
- Standard No. 4 shall be the exterior noise level that may not be exceeded for a cumulative period of more than one minute in any hour. Standard No. 4 shall be the applicable noise level from Table 3.10-5 plus 15 dB(A); or, if the ambient $L_{1.7}$ exceeds the forgoing level, then the ambient $L_{1.7}$ becomes the exterior noise level for Standard No. 4.
- Standard No. 5 shall be the exterior noise level that may not be exceeded for any period of time. Standard No. 5 shall be the applicable noise level from Table 3.10-5 plus 20 dB(A); or, if the ambient L_0 exceeds the forgoing level, then the ambient L_0 becomes the exterior noise level for Standard No. 5.

Section 12.08.400 of the Noise Ordinance also established interior noise standards for dwelling units in the County based on the allowable interior noise levels shown in **Table 3.10-6**.

TABLE 3.10-6
COUNTY OF LOS ANGELES INTERIOR NOISE STANDARDS FOR DWELLING UNITS

Noise Zone	Designated Land Use	Time Interval	Allowable Interior Noise Level (dBA)
All	Multifamily	10:00 P.M. to 7:00 A.M.	40
	Residential	7:00 A.M. to 10:00 P.M.	45

SOURCE: County of Los Angeles Ordinance No. 11743, Section 12.08.400.

As indicated in Section 12.08.400, no person is allowed to operate or cause to be operated within a dwelling unit any source of sound, or allow the creation of any noise, that causes the noise level when measured inside a neighboring receiving dwelling unit to exceed the following standards:

- Standard No. 1. The applicable interior noise level from Table 3.10-6 for cumulative period of more than 5 minutes in any hour.
- Standard No. 2. The applicable interior noise level from Table 3.10-6 plus 5 dB(A) for a cumulative period of more than 1 minute in any hour.
- Standard No. 3. The applicable interior noise level from Table 3.10-6 plus 10 dB(A) or the maximum measured ambient noise level for any period of time.

With respect to construction noise in the County, Section 12.08.440 of the Noise Ordinance prohibits the operation of any tools or equipment used between weekday hours of 7:00 P.M. and 7:00 A.M., or at any time on Sundays or holidays, that will create a noise disturbance across a residential or commercial real-property line. The only exceptions would be emergency work or public safety projects (Section 12.08.0570, part 5, exemption H, Public Health and Safety Activities) or by variance issued by the health officer. Additionally, both the working hours and maximum levels of equipment and activity noise that are allowable from both mobile and stationary equipment in the County are defined by land use and shown in **Table 3.10-7**.

TABLE 3.10-7
COUNTY OF LOS ANGELES CONSTRUCTION NOISE STANDARDS

Allowable Work Dates & Hours	Residential Structures					
	Single-Family		Multi-Family		Semi-Residential/Commercial	
	Mobile Equipment [a]	Stationary Equipment [b]	Mobile Equipment [a]	Stationary Equipment [b]	Mobile Equipment [a]	Stationary Equipment [b]
Daily 7:00 A.M. to 8:00 P.M.[c]	75 dBA	60 dBA	80 dBA	65 dBA	85 dBA	70 dBA
Daily 8:00 P.M. to 7:00 A.M.[d]	60 dBA	50 dBA	64 dBA	55 dBA	70 dBA	60 dBA
	Business Structures					
Daily[d]	85 dBA					

[a] Represents maximum noise levels for nonscheduled, intermittent, short-term operation (less than 10 days).
[b] Represents maximum noise level for repetitively scheduled and relatively long-term operation (periods of 10 days or more).
[c] Exception for Sundays and legal holidays.
[d] Includes all day Sunday and legal holidays.

SOURCE: County of Los Angeles Ordinance No. 11743, Section 12.08.440.

County of Los Angeles Groundborne Vibration Regulation

With respect to vibration, the County Noise Ordinance identifies a presumed perception threshold of 0.01 inches per second over the range of 1 to 100 hertz . Section 12.08.560 of the County Noise Ordinance prohibits the operation of any device that creates vibration above the vibration perception threshold of any individual at or beyond the property boundary of the source if on private property, or at 150 feet (46 meters) from the source if on a public space or public right-of-way.

City General Plans and Municipal Codes

The EWMP areas associated with the proposed program are located in multiple jurisdictions of Los Angeles County, which aside from the County also includes 46 cities. Each of these cities has their own independent General Plan and municipal code that regulates noise levels from various sources within their jurisdictional boundaries. Given that a project-level analysis for each structural BMP proposed in the EWMPs is beyond the scope of this PEIR, an extensive listing of

the noise policies and regulations of each of the participating Permittees is not provided in this PEIR.

3.10.4 Impact Assessment

The proposed program's potential impacts have been assessed using the California Environmental Quality Act (CEQA) Guidelines Appendix G Checklist. The following sections discuss the key issue areas identified in the CEQA Guidelines with respect to the proposed program's potential effect due to noise and vibration.

Thresholds of Significance

For the purposes of this PEIR and consistency with Appendix G of the CEQA Guidelines, the proposed program would have a significant noise impact if it would:

- Result in exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- Result in exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels.
- Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
- Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.
- For a project located within an airport land use plan area, or, where such a plan has not been adopted, in an area within 2 miles of a public airport or public use airport, expose people residing or working in the area to excessive noise levels.
- For a project located in the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

Program Impact Discussion

Noise Levels Standard Exceedance

Impact 3.10-1: The proposed program could result in exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Structural (Regional, Centralized, and Distributed) BMPs

Construction

Implementation of the proposed program would involve the installation of structural control measures that would be constructed as BMPs to reduce the impact of stormwater and non-stormwater on receiving water quality within the EWMP areas. Construction of the various structural BMPs proposed in the EWMP is anticipated to occur intermittently over the program implementation period. The proposed locations of individual BMPs are subject to change throughout the EWMP planning process. Definitive construction equipment lists, material lists,

construction methods, construction schedules, and workforce details would be developed in the future as specific structural BMP projects are finalized according to the EWMPs.

The construction noise impacts associated with each individual structural BMP project would be short-term in nature and limited to the period of time when construction activity is taking place for that particular project. Construction activity noise levels at and near each structural BMP construction site would fluctuate depending on the particular type, number, and duration of usage of various pieces of construction equipment. Generally, development at each BMP construction site may require the use of heavy construction equipment for activities such as site preparation, grading and excavation, and the physical development of the structural BMP. Development activities could also involve the use of smaller power tools, generators, and other sources of noise. During each stage of development for each individual structural BMP project, there would be a different mix of equipment operating and noise levels would vary based on the amount and type of equipment in operation and the location of the activity.

The USEPA has compiled data for outdoor noise levels for typical construction activities. These data are presented in **Table 3.10-8**. The noise levels shown in Table 3.10-8 represent composite noise levels associated with typical construction activities, which take into account both the number of pieces and spacing of heavy construction equipment that are typically used during each phase of construction. These noise levels would diminish rapidly with distance from the construction site at a rate of approximately 6 dBA per doubling of distance. For example, a noise level of 84 dBA L_{eq} measured at 50 feet from the noise source to the receptor would reduce to 78 dBA L_{eq} at 100 feet from the source to the receptor, and reduce by another 6 dBA L_{eq} to 72 dBA L_{eq} at 200 feet from the source to the receptor. **Table 3.10-9** shows the typical maximum and average noise levels produced by various types of construction equipment.

TABLE 3.10-8
TYPICAL OUTDOOR CONSTRUCTION NOISE LEVELS

Construction Phase	Noise Level (dBA, $_{Leq}$)[a]
Ground Clearing	84
Excavation	89
Foundations	78
Erection	85
Finishing	89

[a] Average noise levels correspond to a distance of 50 feet from the noisiest piece of equipment associated with a given phase of construction and 200 feet from the rest of the equipment associated with that phase.

SOURCE: USEPA, 1971.

TABLE 3.10-9
TYPICAL NOISE LEVELS FROM CONSTRUCTION EQUIPMENT

Construction Equipment	Maximum Noise Level (dBA, L_{max} at 50 feet)	Average Noise Level (dBA, L_{eq} at 50 feet)[a]
Air Compressor	78	74
Backhoe	78	74
Chain Saw	84	77
Compactor (Ground)	83	76
Concrete Mixer Truck	79	75
Concrete Pump Truck	81	74
Concrete Saw	90	83
Crane	81	73
Dozer	82	78
Dump Truck	77	73
Excavator	81	77
Generator	82	79
Flat-Bed Truck	74	70
Front End Loader	79	75
Grader	85	81
Jack Hammer	89	82
Pavement Scarafier	90	83
Paver	77	74
Pneumatic Tool	85	82
Pumps	81	78
Roller	80	73
Scraper	84	80
Tractor	84	80
Vacuum Street Sweeper	82	72
Vibratory Concrete Mixer	80	73
Welder/Torch	74	70

[a] The average noise levels for the construction equipment at 50 feet were calculated from the maximum noise levels using the usage factors for each piece of equipment provided in the FHWA's RCNM.

SOURCE: FHWA, 2006.

As shown in Table 3.10-8, excavation activities can typically generate noise levels of 89 dBA L_{eq} at 50 feet from the construction noise source. Given the urbanized environment of many of the EWMP areas, many of the structural BMP projects would be constructed in proximity or adjacent to existing land uses, including those that are noise-sensitive uses. The construction activities for each structural BMP project would temporarily expose their respective existing off-site surrounding land uses to increased noise levels while construction activities are ongoing. This would be most applicable to the distributed BMPs, which are most likely to be implemented in

high-density urban, commercial, industrial, and transportation areas where they will either replace or improve upon existing stormwater infrastructure. While the larger centralized and regional structural BMP projects (which require a larger footprint than the distributed BMPs) would occur mostly in existing open space areas that may have greater buffer distances to nearby surrounding land uses, there may still be incidences where a proposed centralized or regional structural BMP site could be located directly adjacent to an existing noise-sensitive land use. Where a proposed structural BMP site is located adjacent or in proximity to existing land uses, the construction activities at the structural BMP site would expose these off-site land uses to increased temporary and intermittent noise levels that are substantially greater than existing ambient noise levels in the area.

While construction noise levels may be exempt from the noise regulations of most of the implementing agencies, there may also be instances where some of the implementing agencies have their own established numerical noise standard for construction noise levels, such as the County of Los Angeles, City of Los Angeles, and the City of El Segundo. Although it is generally anticipated that construction of the structural BMPs would comply with such construction noise standards, there may be scenarios where these local numerical noise standards could potentially be exceeded. As a result, under these conditions, construction noise impacts would be potentially significant.

Mitigation Measure NOISE-1 would reduce construction noise impacts, requiring construction activities to be conducted in accordance with the applicable local noise regulations and standards, the implementation of noise reduction devices and techniques during construction activities, and advance notification to the surrounding noise-sensitive receptors of a structural BMP site about upcoming construction activities and their hours of operation. This would serve to reduce the construction-related noise levels at nearby receptors to the maximum extent feasible. However, as discussed previously, for implementing agencies that have established numerical noise standards for construction activities, there may be circumstances where the construction activities for a particular structural BMP project may exceed established thresholds. . Because of the possibility that certain structural BMP projects may exceed noise levels established by their respective local jurisdictions, this impact would be significant and unavoidable.

Operation

As discussed previously, the majority of the distributed, centralized, and regional structural BMPs would operate passively in the sense that they would not require the use of mechanized stationary equipment for their operation; however, it is anticipated that some of the centralized and regional structural BMPs would require the use of irrigation pump stations and associated components to divert the collected stormwater. At these structural BMP sites, operational noise levels would result from operation of the pumps and associated components. However, as a stationary noise source, the pumping equipment used at a structural BMP site would be required to comply with the applicable exterior noise standards and/or regulations established by the implementing agency that has jurisdiction over the site. Additionally, it is anticipated that many of the irrigation pumps would be located belowground and all other noise-producing components (e.g., generators) would be enclosed. As such, the noise levels generated by on-site pumps and associated components at structural BMP sites associated with the project would not exceed or violate noise standards and regulations established by implementing agencies in the EWMP areas. **Mitigation Measure NOISE-2** would be implemented to ensure that the operational noise levels occurring at structural

BMP sites that employ stationary mechanized equipment would be required to adhere and comply with the local noise standards established by the responsible implementing agency. Thus, with implementation of Mitigation Measure NOISE-2, operational noise impacts would be less than significant.

Mitigation Measures:

NOISE-1: The implementing agencies shall implement the following measures during construction as needed:

- Include design measures necessary to reduce the construction noise levels to where feasible. These measures may include noise barriers, curtains, or shields.
- Place noise-generating construction activities (e.g., operation of compressors and generators, cement mixing, general truck idling) as far as possible from the nearest noise-sensitive land uses.
- Locate stationary construction noise sources as far from adjacent noise-sensitive receptors as possible.
- If construction is to occur near a school, the construction contractor shall coordinate the with school administration in order to limit disturbance to the campus. Efforts to limit construction activities to non-school days shall be encouraged.
- For the centralized and regional BMP projects located adjacent to noise-sensitive land uses, identify a liaison for these off-site sensitive receptors, such as residents and property owners, to contact with concerns regarding construction noise and vibration. The liaison's telephone number(s) shall be prominently displayed at construction locations.
- For the centralized and regional BMP projects located adjacent to noise-sensitive land uses, notify in writing all landowners and occupants of properties adjacent to the construction area of the anticipated construction schedule at least 2 weeks prior to groundbreaking.

NOISE-2: All structural BMPs that employ mechanized stationary equipment that generate noise levels shall comply with the applicable noise standards established by the implementing agency with jurisdiction over the structural BMP site. The equipment shall be designed with noise-attenuating features (e.g., enclosures) and/or located at areas (e.g., belowground) where nearby noise-sensitive land uses would not be exposed to a perceptible noise increase in their noise environment.

Significance Determination: Significant and unavoidable with mitigation for construction; less than significant with mitigation for operations. (The application of these mitigation measures to specific BMP types and categories are identified in Table 3.10-11.)

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, there would be no impacts related to construction noise.

Mitigation Measures: None required

Significance Determination: No impact

Groundborne Vibration

Impact 3.10-2: The proposed program could result in exposure of persons to, or generation of, excessive groundborne vibration.

Structural (Regional, Centralized, and Distributed) BMPs

Construction of many of the structural BMP projects would include activities such as site preparation, grading, and excavation, which would have the potential to generate low levels of groundborne vibration. Persons residing and working in an area located in proximity to a structural BMP site could be exposed to some degree of groundborne vibration or groundborne noise levels related to construction activities. Ground vibrations from construction activities only rarely reach the levels that can damage structures, but they can be perceived in the audible range and be felt in buildings very close to a construction site.

Construction activities for the various structural BMP projects would have the potential to impact their respective nearby land uses. Given the urbanized environment of the County, the potential exists for construction of a structural BMP project, especially the distributed structural BMPs that would most likely be implemented in existing high-density areas, to be located within 25 feet of an adjacent noise-sensitive land use. Consequently, existing off-site receptors that are located immediately adjacent to these structural BMP sites could be exposed to some degree of groundborne vibration. The various PPV and RMS velocity (in VdB) levels for the types of construction equipment that could operate during the construction of the structural BMP projects are identified in **Table 3.10-10**. Based on the information presented in Table 3.10-11, vibration velocities could reach as high as approximately 0.089-inch-per-second PPV at 25 feet from the operation of a large bulldozer. This corresponds to an RMS velocity level (in VdB) of 87 VdB at 25 feet from the large bulldozer.

For the types of construction methods required to construct the various structural BMPs, vibration levels at nearby sensitive receptors would not approach the Caltrans damage thresholds presented in Table 3.10-3. Although some vibration may be experienced locally, vibration-related impacts from implementation of structural BMPs would be less than significant.

TABLE 3.10-10
VIBRATION VELOCITIES FOR CONSTRUCTION EQUIPMENT

Construction Equipment	PPV at 25 feet (inches/second)	RMS at 25 feet (VdB)
Large Bulldozer	0.089	87
Loaded Trucks	0.076	86
Jackhammer	0.035	79
Small Bulldozer	0.003	58

SOURCE: FTA, 2006.

Mitigation Measures: None required

Significance Determination: Less than significant

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, there would be no impacts related to groundborne vibration or noise.

Mitigation Measures: None required

Significance Determination: No impact

Permanent Ambient Noise Levels Increase

Impact 3.10-3: The proposed program could result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

Structural (Regional, Centralized, and Distributed) BMPs

Given that the majority of the distributed, centralized, and regional structural BMPs would operate in a passive manner (i.e., would not require the use of mechanized stationary equipment) after their construction, no operational noise levels would be generated by these structural BMPs. However, it is anticipated that that some of the centralized and regional structural BMPs would require the use of irrigation pump stations and associated components to divert the collected stormwater. At these structural BMP sites, noise levels generated from the long-term operation of the pumps and associated components could result in increased noise levels in the surrounding noise environment. However, as discussed under Impact 3.10-1, the pumping equipment used at a structural BMP site would be required to comply with the applicable exterior noise standards and/or regulations established by the implementing agency that has jurisdiction over the site. In addition, many of the irrigation pumps would primarily be located belowground and all other noise-producing components (e.g., generators) would be enclosed. Furthermore, with implementation of **Mitigation Measure NOISE-1**,which would require the stationary mechanized equipment employed at each structural BMP site to comply with the local noise

standards established by the responsible implementing agency with jurisdiction over the site, and for the equipment to be designed and located in a manner such that neighboring sensitive land uses would not be exposed to a perceptible noise increase in their environment (**Mitigation Measure NOISE-2)**, this impact would be less than significant.

Mitigation Measures: Implementation of **Mitigation Measures NOISE-1** and **NOISE-2**

Significance Determination: Less than significant with mitigation (The application of these mitigation measures to specific BMP types and categories are identified in Table 3.10-11.)

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the operation of new facilities. Consequently, there would be no impacts related to a substantial permanent increase in ambient noise levels resulting from implementation of the non-structural BMPs.

Mitigation Measures: None required

Significance Determination: No impact

Temporary Ambient Noise Levels Increase

Impact 3.10-4: The proposed program could result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Structural (Regional, Centralized, and Distributed) BMPs

During construction of the distributed, centralized, and regional structural BMPs, temporary or periodic increases in noise levels in and around each structural BMP site would result from the operation of construction equipment. As discussed in Impact 3.10-1, the construction activities for each individual structural BMP project would expose their respective nearby existing land uses to increased noise levels. Where a structural BMP site is located within 25 feet of an existing noise-sensitive land use, the resulting construction noise levels at that existing land use could reach as high as 95 dBA L_{eq} during excavation activities, which would result in a substantial noise increase over existing ambient noise levels at that existing land use. Although implementation of **Mitigation Measure NOISE-1** would reduce construction noise levels associated with the proposed program to the maximum extent feasible, under circumstances where future structural BMP sites are located immediately adjacent to existing sensitive land uses, the noise impacts related to a substantial temporary or periodic increase in ambient noise levels above levels existing without the structural BMPs would remain significant. Therefore, this impact for the proposed program would be significant and unavoidable. The identification of a significant and unavoidable program-level impact in this PEIR for the proposed program, however, does not preclude the finding of future less-than-significant impacts for individual structural BMP projects.

Mitigation Measures: Implementation of **Mitigation Measure NOISE-1**

Significance Determination: Significant and unavoidable with mitigation (The application of this mitigation measure to specific BMP types and categories are identified in Table 3.10-11.)

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, there would be no impacts related to a substantial temporary or periodic increase in ambient noise levels resulting from implementation of the non-structural BMPs.

Mitigation Measures: None required

Significance Determination: No impact

Exposure of Excessive Airport Noise Levels

Impact 3.10-5: For a project located within an airport land use plan area, or, where such a plan has not been adopted, in an area within 2 miles of a public airport or public use airport, implementation of the proposed program could expose people residing or working in the area to excessive noise levels.

Structural (Regional, Centralized, and Distributed) BMPs

The Distributed, Centralized, and Regional structural BMPs that would be implemented as part of the proposed program would serve to reduce the impact of stormwater and non-stormwater on receiving water quality and address the water quality priorities as defined by the MS4 Permit. While some of these structural BMPs could potentially occur at paved areas of airports (excluding the landing areas and taxiways, which have specific aircraft support requirements) and the undeveloped buffer zones around airports, no permanent residents or workers would be introduced to these areas under the proposed program. While maintenance and inspection of the structural BMPs would occur, these activities would only occur periodically and would be minimal during project operations. Therefore the proposed program would not introduce permanent future residents or workers to the structural BMP areas and as such would not expose persons to excessive airport-related noise levels. Exposure to airport noise would be a less than significant impact.

Mitigation Measures: None required

Significance Determination: Less than significant

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, there would be no impacts related to the exposure of people to excessive noise levels associated with a public airport or public use airport.

Mitigation Measures: None required

Significance Determination: No impact

Exposure of Persons to Excessive Private Airstrip Noise Levels

Impact 3.10-6: For a project located in the vicinity of a private airstrip, the proposed program could expose people residing or working in the project area to excessive noise levels.

Structural (Regional, Centralized, and Distributed) BMPs

As discussed under Impact 3.10-5 above, the proposed program would not introduce permanent future residents or workers to the structural BMP areas. Thus, while future structural BMP sites could be located in the vicinity of private airstrips, no persons would be exposed to excessive airstrip-related noise levels. Exposure to airstrip-related noise would be a less than significant impact.

Mitigation Measures: None required

Significance Determination: Less than significant

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, there would be no impacts related to the exposure of people to excessive noise levels associated with a private airstrip.

Mitigation Measures: None required

Significance Determination: No impact

Cumulative Impact Discussion

Structural (Regional, Centralized, and Distributed) BMPs

Noise and vibration are both defined as localized phenomena that significantly reduce in magnitude as distance from the source increases. The structural BMPs associated with the proposed program would be constructed in multiple jurisdictions of Los Angeles County, which aside from the County also includes 46 cities and LACFCD. As such, these structural BMP projects would be generally spread over a large geographic area within the County. These structural BMPs in combination with other current and planned projects in the County would result in an increase in construction-related noise levels, which would temporarily increase the ambient noise levels of the existing noise environment in areas where a construction project would occur. This would result in significant and unavoidable impacts for construction, but less than significant for operation.

Mitigation Measures: Implementation of **Mitigation Measures NOISE-1** and **NOISE-2**

Significance Determination: Significant and unavoidable with mitigation for construction; Less than significant for operation. (The application of these mitigation measures to specific BMP types and categories are identified in Table 3.10-11.)

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, there would be no new facilities that would contribute to cumulative noise impacts. As such, no impacts related to cumulative noise would occur.

Mitigation Measures: None required

Significance Determination: No impact

Summary of Impact Assessment

Table 3.10-11 shows a summary of the structural BMPs requiring mitigation.

TABLE 3.10-11
SUMMARY OF NOISE IMPACTS REQUIRING MITIGATION MEASURES

	Thresholds of Significance				
Regional BMPs	**Exceed Noise Standards**	**Vibration**	**Ambient Noise**	**Exposure to Airport Noise**	**Cumulative Impacts**
Applicable Mitigation Measures:	**NOISE-1; NOISE-2**	**None Required**	**NOISE-1**	**None Required**	**NOISE-1; NOISE-2**
Regional Detention and Infiltration	Yes	Yes	Yes	No	Yes
Regional Capture, Detention and Use	Yes	Yes	Yes	No	Yes
Centralized BMP					
Bioinfiltration	Yes	Yes	Yes	No	Yes
Constructed Wetlands	No	No	No	No	No
Treatment/Low Flow Diversions	No	No	No	No	No
Creek, River, Estuary Restoration	No	No	No	No	No
Distributed BMPs					
Site Scale Detention	No	No	No	No	No
LID – Infiltration/Filtration BMPs – Porous Pavement, Green Streets, Bioswale/Filter Strips, downspout disconnects	No	No	No	No	No
LID – Green Infrastructure – Capture and Use – Cisterns, Rain Barrels, Green roofs, Planter Boxes	No	No	No	No	No
Flow through Treatment BMPs	No	No	No	No	No
Source Control Treatment BMPs (catch basin inserts/screens, hydrodynamic separators, gross solids removal devices)	No	No	No	No	No
Low Flow Diversions	No	No	No	No	No

NOTE: These conclusions are based on typical size and function of BMPs.

3.11 Population and Housing and Environmental Justice

This section examines the existing population, housing, and employment conditions in Los Angeles County (County) as a whole. Data presented in this section was obtained from two U.S. Census Bureau data sets: 2010 census files and 2008–2012 American Community Survey (ACS) 5-year estimates. According to Section 15382 of the California Environmental Quality Act (CEQA) Guidelines, "An economic or social change by itself shall not be considered a significant impact on the environment." Socioeconomic characteristics should be considered in an Environmental Impact Report (EIR) only to the extent that they create adverse impacts on the physical environment.

3.11.1 Environmental Setting

Population

The proposed program is located in Los Angeles County, which has a population of approximately 10,017,068 people (U.S. Census Bureau, 2013). Like much of the Southern California region, Los Angeles County has experienced a population increase over the past decade. Between 2000 and 2012, the County experienced a growth rate of 3.8 percent, roughly two and a half times below the rest of the Southern California Association of Governments (SCAG) Region (10.4 percent) (SCAG, 2013). The County's population is estimated to grow to 11,353,000 by 2035 (SCAG, 2012).

Demographics

According to the 2008–2012 ACS 5-year estimates data, the racial breakdown of Los Angeles County's population is as follows:

- 27.8 percent White
- 47.7 percent Hispanic or Latino of any race
- 13.7 percent Asian
- 8.2 percent Black/African American
- 0.2 percent American Indian and Alaska Native
- 0.2 percent Native Hawaiian and Other Pacific Islander
- 2.2 percent Other (two or more races; some other race)

The general distribution of demographics around the County based on 2010 census data shows that the Hispanic and Black/African American populations are most highly concentrated within the center of the County's coastal basin, with the Black/African American population most highly concentrated within the cities of Baldwin Hills, Inglewood, Compton, and Carson. White populations within the County are most concentrated along the coastal western County boundary from Malibu down to Palos Verdes and along the coastal southern County boundary from Long Beach to Los Alamitos. The White populations are also concentrated along the Santa Monica Mountains and northern County limits, interspersed with mainly Hispanic and Asian populations

in the central San Fernando Valley. Concentrations of the Asian populations exist around South San Gabriel and North El Monte, as well as around mid-city Los Angeles, Westwood, Torrance, and Norwalk (Cable, 2013).

Income

In the County of Los Angeles, the median household income is $56,241 according to the 2008-2012 ACS 5-Year Estimates data. Between the years of 2000 and 2012, the median household income for the County increased by an average of $11,691 annually. Median household income levels vary widely by census tract throughout the County, with lower-income tracts primarily located in central, east, and south Los Angeles. Other lower-income census tracts lie in the northern edges of the County, including some in the cities of Palmdale and Lancaster.

The median household annual income for all cities/Permittees included in the 12 EWMP areas ranges from $41,538 in the City of Industry to over $250,000 in the City of Hidden Hills. This represents over a $200,000 range in the EWMP areas. The cities'/Permittees' median household income is $75,350, which is almost $20,000 higher than the County median household income level.

TABLE 3.11-1
2014 LOS ANGELES COUNTY AREA MEDIAN HOUSEHOLD INCOME CLASSIFICATION IN U.S. DOLLARS

	2 persons in household	3 persons in household	4 persons in household
Extremely low income	20,500	23,050	25,600
Very low income	34,200	38,450	42,700
Low Income*	54,650	61,500	68,300
Median Income	51,850	58,300	64,800
Moderate Income	62,200	70,000	77,750

*Low income exceeding median income is an anomaly just for LA County due to HUD historical high cost adjustments to median. Household lower-income figures are derived based on very-low income figures not adjusted by HUD to account for any exceptions.

SOURCE: California Department of Community Development, 2014

Median household income varies greatly throughout Los Angeles neighborhoods. "High" median household income levels are concentrated mostly along the western boundary of the County along the coast and in Santa Clarita bordering Ventura County. These areas include the majority of the Upper Santa Clara River, Malibu Creek, North Santa Monica Bay, Beach Cities, and Palos Verdes Peninsula EWMP areas, along with parts of the Santa Monica Bay Jurisdictions 2 and 3 and the Ballona Creek EWMP areas. "Low" median household income areas are concentrated in the southern center of the County, and include parts of the Upper Los Angeles River, Ballona Creek, and Dominguez Channel EWMP areas. "Medium" median household income areas are more evenly interspersed throughout the County (Los Angeles Times, 2014).

Housing

There are approximately 3,441,416 housing units in Los Angeles County, with an average household size of 3.19 for owner-occupied units and 2.84 for renter-occupied units (U.S. Census Bureau, 2008–2012). As for housing tenure, 47.3 percent of County units are owner-occupied and 52.7 percent are renter-occupied units. The County homeowner vacancy rate is 1.7 percent and the rental vacancy rate is 4.5 percent; these vacancy rates are much lower than the national rates (2.3 percent of homeowners and 7.5 percent of rentals). Vacancy rates are an indicator of housing market balance in the County, where high vacancy rates demonstrate low demand and/or high prices, and low vacancy rates demonstrates high demand and/or low prices in the housing market. The County's vacancy rates are relatively low compared to the national level, indicating a relatively high demand for housing in the region.

3.11.2 Regulatory Setting

Federal

Executive Order 12898 outlines federal actions to address environmental justice in minority populations and low-income populations. Executive Order 12898 states that agencies shall identify and address disproportionately high and adverse human health or environmental effects on minority and low-income populations. A new working group was created to develop strategies for programs and policies regarding minority and low-income populations to: promote enforcement of all health and environmental statutes, improve research and data collection in relation to health and environment, identify different patterns of consumption of natural resources, and ensure greater public participation.

Local

County of Los Angeles General Plan

A General Plan is a basic planning document that, alongside the zoning code, governs development in a city or county. The State requires each city and county to adopt a General Plan with seven mandatory elements: land use, open space, circulation, housing, noise, conservation, and safety, along with any number of optional elements as appropriate. The proposed EWMPs would be subject to the local plans and policies of the areas in which they are located. Because this Program Environmental Impact Report (PEIR) is a high-level assessment of projects spanning the entire County, it will discuss only the County-level goals and policies relating to the overall program.

Housing Element (2014–2021)

The Housing Element is a required section of the General Plan, and serves to address the existing and projected housing needs of a city or county, including their share of the regional housing need. State law requires each local government agency to update their Housing Element every 5 years, and submit it to the State Department of Housing and Community Development for review. Los Angeles County's Housing Element was updated most recently in early 2014 for the 2014–2021 planning period. This policy guide analyzes the housing needs of the unincorporated areas of the County, and its primary focus is to ensure decent, safe, sanitary, and affordable

housing for current and future residents in those areas. The following are the goals and policies from the Los Angeles County Housing Element that relate to the proposed program.

Goal 5: Neighborhoods that protect the health, safety, and welfare of the community, and enhance public and private efforts to maintain, reinvest in, and upgrade the existing housing supply.

Policy 5.2: Maintain adequate neighborhood infrastructure, community facilities, and services as a means of sustaining the overall livability of neighborhoods.

Goal 6: An adequate supply of housing preserved and maintained in sound condition, and located within safe and decent neighborhoods.

Policy 6.4: Maintain and improve community facilities, public housing services, and infrastructure, where necessary, to enhance the vitality of older, low income neighborhoods.

City General Plans

The EWMP areas associated with the proposed program are located in multiple jurisdictions of Los Angeles County, which, aside from the County, also includes 46 cities. Each of these cities has their own independent General Plan and municipal code that regulates housing. Given that a project-level analysis for each structural Best Management Practice (BMP) proposed in the EWMPs is beyond the scope of this PEIR, an extensive listing of the housing policies and regulations of each of the participating Permittees is not provided in this PEIR.

3.11.3 Impacts Assessment

Thresholds of Significance

For the purposes of this PEIR and consistency with Appendix G of the CEQA Guidelines, the project would have a significant impact on population and housing if it would:

- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Implementation of the proposed project may result in a potentially significant impact to environmental justice if the projects would:

- Affect the health or environment of minority or low-income populations disproportionately.

Program Impact Discussion

Impact 3.11-1: Implementation of the proposed program could induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

Structural (Regional, Centralized, and Distributed) BMPs

The structural BMPs associated with the proposed program would be installed to treat existing water quality impairments and would not induce population growth in the EWMP areas, either directly or indirectly. The structural BMPs are not habitable structures and would not provide new homes or businesses. In addition, the structural BMPs would generally be located within existing urbanized areas that do not have structural BMPs to treat existing runoff; the implementation of structural BMPs within existing stormwater infrastructure would not indirectly induce growth as the BMPs do not provide growth opportunities, as occurs with the extension of roads or other infrastructure. The construction work force anticipated to support implementation of the proposed projects would be drawn from the local Los Angeles region workforce and would not require housing. Because of the relatively short construction durations (typically less than one year) of the various types of structural BMPs and large available construction workforce in the Los Angeles Region, it is assumed that construction workers would not have to travel far or add traffic to roads outside of the vicinity of the project sites.

In addition, while one of the main goals of the EWMP is to increase infiltration and potentially increase recharge of stormwater into the groundwater basin, the amount of water potentially recharged would not be enough to indirectly support population growth. This potential additional recharge would contribute to local water supplies, but would not alter population demographics. Therefore, there would be no impact on population growth, either directly or indirectly.

Mitigation Measures: None required

Significance Determination: No impact

Non-Structural (Institutional) BMPs

Non-structural BMPs consist of policies, actions, and activities aimed at preventing pollutants from entering stormwater runoff; therefore, no physical impacts would occur in the EWMP areas. Non-structural BMPs would not include any direct or indirect population growth-inducing measures. There would be no impact.

Mitigation Measures: None required

Significance Determination: No impact

Impact 3.11-2: Implementation of the proposed program could displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

Structural (Regional, Centralized, and Distributed) BMPs

The proposed program and implementation of associated structural BMPs would not impact existing housing or necessitate construction of additional or replacement housing elsewhere. Structural BMPs may be constructed on private parcels, but would not displace existing housing or necessitate replacement housing elsewise. Although a property owner may decide to modify the structures on their property, that a structural BMP would not displace existing housing.

Distributed BMPs are most likely to be implemented in high-density urban, commercial, industrial, and transportation areas where they would either replace or improve upon existing stormwater infrastructure. These types of BMPs are generally "retrofit" type projects that replace existing impervious surfaces with pervious surfaces such as bioinfiltration cells, bioswales, porous pavement, and filter strips that tie into existing stormwater management systems. These projects may also augment the existing stormwater management systems with additional inlet screens, filter media systems, sediment removal systems, and diversions to sanitary sewer lines. Ground disturbance for distributed BMPs is typically less than 1 to 2 acres in extent, but may extend in some limited applications up to 5 acres where space is available. Any new construction would be implemented along sidewalks and streets, in parks, and on publicly owned lands and would have no direct impact on existing homes. If projects are implemented in residential areas or streets, the projects would likely provide an improvement to the community in terms of aesthetic appearance.

Mitigation Measures: None required

Significance Determination: No impact

Non-Structural (Institutional) BMPs

The implementation of non-structural BMPs would not displace housing, as they do not involve structural elements and would not have a direct physical impact on the environment, as no construction or maintenance activities would be required. There would be no impact.

Mitigation Measures: None required

Significance Determination: No impact

Impact 3.11-3: Implementation of the proposed program could displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Structural (Regional, Centralized, and Distributed) BMPs

The currently planned program and implementation of associated structural BMPs would not displace any housing or people. Structural BMPs would generally be implemented along sidewalks and streets, in parks, and on publicly owned lands and would have no direct impact on existing homes or residents. Future regional and centralized structural BMPs under the EWMP may include private property, schools, and universities. These potential future structural BMPs are not anticipated to result in displacement of existing housing.

Mitigation Measures: None required

Significance Determination: No impact

Non-Structural (Institutional) BMPs

The implementation of non-structural BMPs would not displace any people, as they do not consist of structural improvements that would have a physical impact on the environment. No construction or maintenance activities would be required. There would be no impact.

Mitigation Measures: None required

Significance Determination: No impact

Impact 3.11-4: Implementation of the proposed program could affect the health or environment of minority or low-income populations disproportionately.

Structural (Regional, Centralized, and Distributed) BMPs

Structural BMPs would be located throughout the County and cities based on water quality priorities and site suitability, factors of which include space, soil type, proximity/connectivity to other BMPs, etc. Structural BMPs are not expected to be concentrated in any one area or city in particular within the EWMP areas. The structural BMPs are expected to be located on public lands (e.g., schools, parks, sidewalks, and road rights-of-way) throughout the EWMP areas and would be designed to capture, convey, and/or filter stormwater and surface runoff. The structural BMPs would treat surface water runoff in a manner that would not result in human contact with surface flows that are potentially harmful to health. Structural BMPs would not disproportionately affect the health or environment of minority or low-income populations. Impacts would be less than significant.

Mitigation Measures: None required

Significance Determination: Less than significant impact

Non-Structural (Institutional) BMPs

Similar to structural BMPs, non-structural BMPs are expected to be implemented throughout the County area, with no concentration in any area in particular. Non-structural BMPs would consist of policies and measures taken to prevent surface water pollution, and by their non-structural and preventative nature are not expected to introduce a threat to the environmental or public health, much less a disproportionate threat to minority or low-income populations. Street sweeping is a non-structural BMP that requires temporary parking restrictions to allow for effective collection and removal of debris and sediment from the streets. Curb parking spaces tend to be used more in higher-density, predominantly rental communities. Prior to implementation of increased street sweeping activities to improve effectiveness of these measures, the impact on street parking would be assessed and frequency of restriction on street parking assessed to avoid impacts to

these communities that rely more heavily on street parking for residences and small businesses. Impacts would be less than significant.

Mitigation Measures: None required

Significance Determination: Less than significant impact

Cumulative Impact Discussion

Structural (Regional, Centralized, and Distributed) BMPs

The proposed program would involve implementation of structural BMPs that would capture and/or infiltrate, filter, divert, or treat stormwater runoff. Structural BMPs would result in the improvement of existing stormwater infrastructure and stormwater quality, and would therefore not result in a direct or indirect increase in population or housing. Structural BMPs would be installed along sidewalks and streets and in other public areas, and would not displace existing people or housing. There would be no impacts to population and housing; therefore, there would be no cumulative impacts to population and housing.

Mitigation Measures: None required

Significance Determination: No impact

Non-Structural (Institutional) BMPs

Non-structural BMPs consist of policies, actions, and activities aimed at preventing pollutants from entering stormwater runoff; there would not be physical impact to the environment. Non-structural BMPs would not include any direct or indirect population growth-inducing measures, and would not displace existing people or housing. There would be no impacts to population and housing; therefore, there would be no cumulative impacts to population and housing.

Mitigation Measures: None required

Significance Determination: No impact

3.11.4 Summary of Impact Assessment

Table 3.11-2 shows a summary of the structural BMPs requiring mitigation.

TABLE 3.11-2
SUMMARY OF POPULATION AND HOUSING IMPACTS REQUIRING MITIGATION MEASURES

	Thresholds of Significance				
Structural BMPs	**Population Growth**	**Displaced Housing**	**Displaced Population**	**Disproportionate Impact on Minority Populations**	**Cumulative Impacts**
Applicable Mitigation Measures:	**None Required**	**None Required**	**None Required**	**None Required**	**None Required**
Regional BMPs					
Regional Retention and Infiltration	No	No	No	No	No
Regional Capture, Detention and Use	No	No	No	No	No
Centralized BMP					
Biofiltration	No	No	No	No	No
Constructed Wetlands	No	No	No	No	No
Treatment/Low-Flow Diversions	No	No	No	No	No
Creek, River, Estuary Restoration	No	No	No	No	No
Distributed BMPs					
Site Scale Detention	No	No	No	No	No
LID – Infiltration/Filtration BMPs – Porous Pavement, Green Streets, Bioswale/Filter Strips, downspout disconnects	No	No	No	No	No
LID – Green Infrastructure – Capture and Use – Cisterns, Rain Barrels, Green roofs, Planter Boxes	No	No	No	No	No
Flow-through Treatment BMPs	No	No	No	No	No
Source Control Treatment BMPs (catch basin inserts/screens, hydrodynamic separators, gross solids removal devices)	No	No	No	No	No
Low-Flow Diversions	No	No	No	No	No

NOTE: These conclusions are based on typical size and function of BMPs.

3.12 Public Services and Recreation

This section addresses potential impacts on public services and recreational resources that could occur as a result of implementation of the proposed program. The public services addressed in this section include law enforcement services, fire protection services, and schools.

3.12.1 Environmental Setting

Public Services

Fire Protection

The Los Angeles County Fire Department (LACFD) serves unincorporated areas as well as many of the cities within the County; 21 of these cities are participating Permittees within the Enhanced Watershed Management Program (EWMP) areas. These cities include Hawthorne, West Hollywood, Malibu, Palos Verdes Estates, Rancho Palos Verdes, Rolling Hills Estates, Azusa, Bradbury, Duarte, Calabasas, Hidden Hills, La Canada Flintridge, Rosemead, San Gabriel, Temple City, Baldwin Park, Covina, Glendora, Industry, La Puente, and Santa Clarita (LACFD, 2013). LACFD employs approximately four thousand emergency personnel and works out of 170 fire stations across the County. In addition to fire suppression, the LACFD also provides fire prevention services, emergency medical services, hazardous materials services, and urban search and rescue services.

LACFD is organized into three different emergency operations bureaus, the North, Central, and East Regional Operations Bureau. The North Regional Operations Bureau includes 43 fire stations serving communities in the Antelope and Santa Clarita Valleys. The Central Regional Operations Bureau includes 51 fire stations serving communities in the central Los Angeles portions of the County. It also includes the Lifeguard Division based in Venice, which helps protect millions of annual visitors along 74 miles of the Pacific Coast. The East Regional Operations Bureau includes 76 fire stations servicing communities within the east side of the County (LACFD, 2013).

Under a mutual-aid pact covering federal forestlands, responsibility for nonstructural fires within the National Forest belongs to the U.S. Forest Service (USFS), while LACFD has the primary mission of suppressing structure fires. In addition, they have an automatic-aid agreement that allows the closest municipality to provide an initial response to fires that may occur in a part of another municipality. The LACFD has several standards to maintain adequate fire protection within their service area (Los Angeles County, 2014). The current standards for response times are:

- 5 minutes or less for response times for urban areas
- 8 minutes or less for suburban areas
- 12 minutes or less for rural areas

LACFD has designated lands in Los Angeles County with regard to their potential for wildland fires. These designations, determined by the County Forester, are based on an area's accessibility,

amount and type of vegetative cover, water availability, and topography. LACFD uses three wildland fire hazard designations: Moderate Fire Hazard, High Fire Hazard, and Very High Fire Hazard. Areas in Los Angeles County that are not designated within a fire hazard zone are not considered to be subject to wildland fire hazards (Los Angeles County, 2014).

The following 26 EWMP participating Permittees run city-owned fire departments: Beverly Hills, Culver City, Inglewood, Santa Monica, Hermosa Beach, Manhattan Beach, Redondo Beach, Torrance, El Segundo, Agoura Hills, Westlake Village, Culver City, Malibu, Arcadia, Monrovia, Sierra Madre, Alhambra, Burbank, Glendale, Los Angeles, Montebello, Monterey Park, Pasadena, Rosemead, San Marino, and South Pasadena, (LACFD, 2013).

Police Protection

The Los Angeles County Sheriff's Department (LASD) provides law enforcement services to more than one million people living within 90 unincorporated communities and to more than four million residents living within 40 contract cities. In addition, LASD provides law enforcement services to nine community colleges, Metro, and 48 Superior Courts (Los Angeles County, 2014). LASD comprises 11 divisions, including 3 patrol divisions and the Office of Homeland Security. In addition to proactive enforcement of criminal laws, the LASD also provides investigative, traffic enforcement, accident investigation, and community education functions.

Cities within the EWMP areas that contract with LASD for their police services include West Hollywood, Agoura Hills, Calabasas, Hidden Hills, Malibu, Westlake Village, Rancho Palos Verdes, Rolling Hills Estates, Rolling Hills. Duarte, Bradbury, Monrovia, Santa Clarita, Industry, La Puente, Glendora, Covina, Baldwin Park, Temple City, East Pasadena, Rosemead, La Canada Flintridge, Hidden Hills, and Calabasas. LASD staff has indicated that an officer-to-population ratio of 1 officer to every 1,000 residents provides the desired level of service for its service area (Los Angeles County, 2014). The LASD also has established an optimal service response time of 10 minutes or less for emergency response incidents (a crime that is presently occurring and is a life-or-death situation), 20 minutes or less for priority response incidents (a crime or incident that is currently occurring but is not a life-or-death situation), and 60 minutes or less for routine response incidents (a crime that has already occurred and is not a life-or-death situation). These response times represent the range of time required to handle a service call, which is measured from the time a call is received until the time a patrol car arrives at the incident scene. Response time is variable, particularly because the nearest responding patrol car may be located anywhere within the station's patrol area and may not necessarily respond directly from the station itself (Los Angeles County, 2014).

Nineteen cities within the EWMP areas run their own city police departments; these cities are Beverly Hills, El Segundo, Culver City, Inglewood, Santa Monica, Los Angeles, Hermosa Beach, Manhattan Beach, Torrance, Hawthorne, Arcadia, San Marino, South Pasadena, San Gabriel, Burbank, Monterey Park, Montebello, Glendale, and Alhambra.

Schools

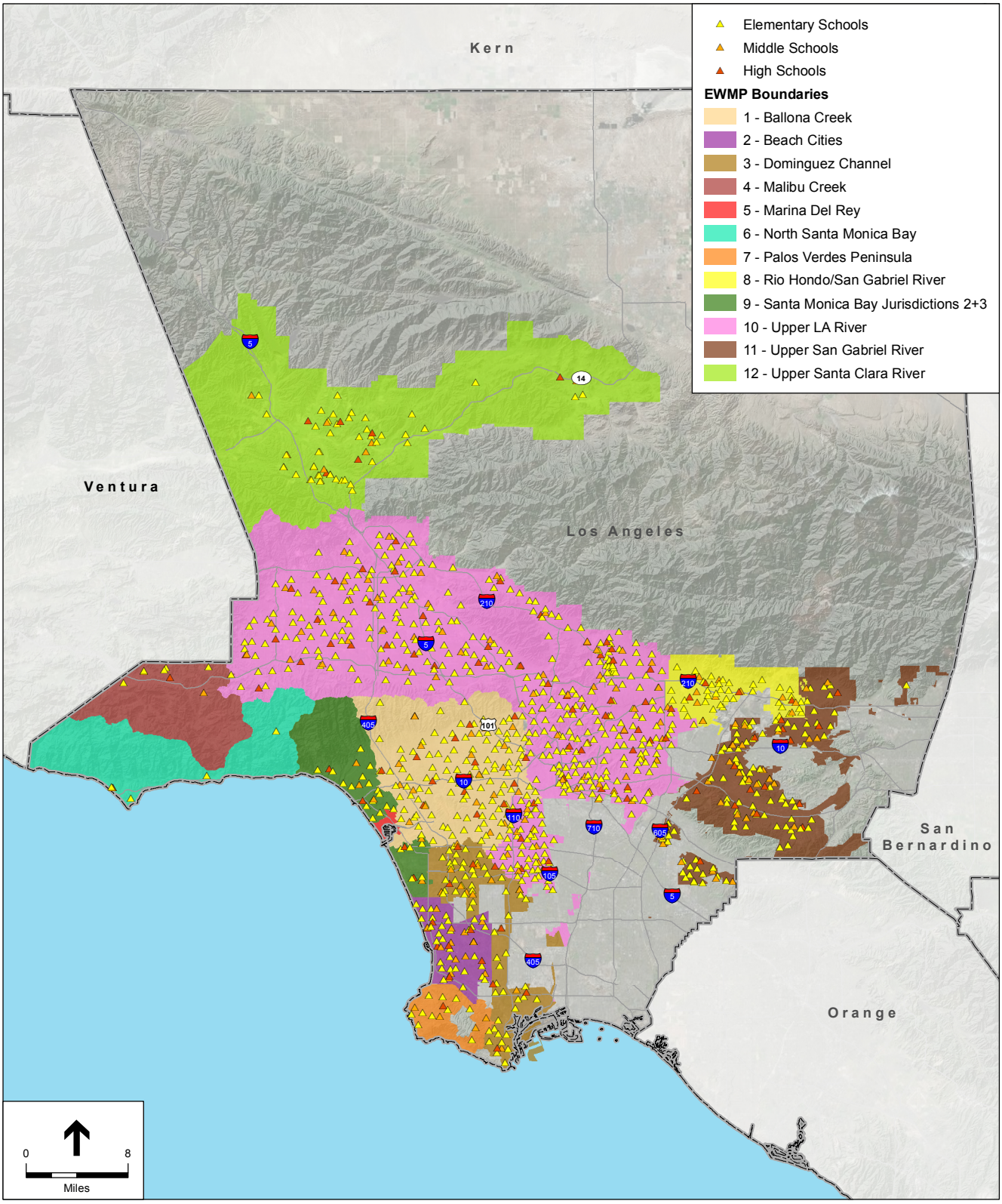
Within the County there are more than two thousand public schools (not including colleges) that serve over 1.5 million students. The County's role in developing and managing educational facilities and programs is limited. However, the Los Angeles County Office of Education (LACOE) serves as a regional education agency and an intermediary between the local school districts and the California Department of Education. LACOE supports 80 public school districts and numerous other educational agencies within the County (LACOE, 2014). The largest public school district in the County is Los Angeles Unified School District (LAUSD), which has a service area of over 720 square miles and includes the City of Los Angeles, 31 smaller municipalities, and unincorporated areas. LAUSD has more than nine hundred schools and 640,000 students (LAUSD, 2014). There are several other smaller school districts in the EWMP study area. **Table 3.12-1** lists the school districts in each EWMP area. **Figure 3.12-1** shows the schools located throughout the EWMP areas, distinguishing between elementary schools, middle schools, high schools, and colleges; other schools such as pre-schools, colleges, and other types of education facilities are not shown.

TABLE 3.12-1
SCHOOL DISTRICTS IN EWMP AREAS

Watershed Management Group	Cities/Permittees	School Districts
Ballona Creek	Beverly Hills, Culver City, Inglewood, Los Angeles, Santa Monica, West Hollywood, County, LACFCD	Beverly Hills USD, Culver City USD, Los Angeles USD, Santa Monica-Malibu USD,
Beach Cities	Hermosa Beach, Manhattan Beach, Redondo Beach, Torrance, LACFCD	Hermosa Beach City School District, Manhattan Beach USD, Redondo Beach USD, Torrance USD,
Dominguez Channel	El Segundo, Hawthorne, Inglewood, Los Angeles, LA County, LACFCD	El Segundo USD, Hawthorne School District, Inglewood USD, Los Angeles USD,
Malibu Creek	Agoura Hills, Calabasas, Hidden Hills, Westlake Village, LA County, LACFCD	Las Virgenes USD, Los Angeles USD
Marina del Rey	Culver City, Los Angeles, LACFCD, LA County	Culver City USD, Los Angeles USD
North Santa Monica Bay	LA County, LACFCD, Malibu	Los Angeles USD, Santa Monica-Malibu USD,
Palos Verdes Peninsula	Palos Verdes Estates, Rancho Palos Verdes, Rolling Hills Estates, LA County, LACFCD	Palos Verdes Area USD, Palos Verdes Peninsula USD, Los Angeles USD
Rio Honda/San Gabriel River	Arcadia, Azusa, Bradbury, Duarte, Monrovia, County, LACFCD, Sierra Madre	Arcadia USD, Duarte USD, Monrovia USD, Los Angeles USD, Pasadena USD
Santa Monica Bay	Los Angeles, El Segundo, Santa Monica, LA County, LACFCD	Los Angeles USD, el Segundo USD, Santa Monica-Malibu USD
Upper LA River	Alhambra, Burbank, Calabasas, Glendale, Hidden Hills, La Canada Flintridge, Los Angeles, Montebello, Monterey Park, Pasadena, Rosemead, San Gabriel, San Marino, South Pasadena, Temple City, LA County, LAFCD	Alhambra USD, Burbank USD, Las Virgenes USD, La Canada USD, Los Angeles USD, Montebello USD, Pasadena USD, Rosemead School District, San Gabriel USD, San Marino USD, South Pasadena USD, Temple City USD
Upper San Gabriel River	Baldwin Park, Covina, Glendora, Industry, La Puente, LACFCD, LA County	Baldwin Park USD, Covina-Valley USD, Glendora USD, Los Angeles USD, Hacienda La Puente USD
Upper Santa Clara River	LA County, LACFCD, Santa Clarita	Los Angeles USD, Newhall School District

USD: Unified School District

SOURCE: Google, 2014.



SOURCE: ESRI.

LA County PEIR EWMP . 140474

Figure 3.12-1

Public School Locations

Parks and Recreational Resources

The County of Los Angeles Department of Parks and Recreation owns, operates, and maintains nearly 174 parks and recreational facilities (LADPR, 2014). The local park system encompasses approximately 609 total acres, and includes community parks (10 to 20 acres in size), neighborhood parks (3 to 10 acres in size), pocket parks (less than 3 acres in size), and park nodes (small pieces of open space that provide breaks to the urban landscape). Local parks serve neighborhoods within a maximum of a 2-mile radius of the park. The regional park system makes up 68,986 acres and includes regional parks (greater than 100 acres), community regional parks (20 to 100 acres), and special-use facilities (single-use facilities serving greater recreational or cultural needs). The parks in the regional park system provide service for areas within a 20- to 25-mile radius. Other recreational facilities available to County residents include trails, multi-benefit parks, school sites, city parks and facilities, private recreational facilities, and greenways (Los Angeles County, 2014).

The County goal for the provision of parkland is 4 acres of local parkland per 1,000 residents of the population in the unincorporated areas, and 6 acres of regional parkland per 1,000 residents of the total population of Los Angeles County (Los Angeles County, 2014). Section 21.24.340 of the County Code has a standard of 3 acres of local and 5 acres of regional parkland per 1,000 residents.

According to County estimates, there are currently a total of 1,066,414 people living in the unincorporated areas. This means that for every 1,000 residents there are a total of approximately 0.57 acres of local parkland, resulting in a local parkland deficit; the current acreage of available local parkland does not meet the County's goal for recreational facilities (Los Angeles County, 2014). In addition to the 609 acres of local parkland, there is a total of 68,986 acres of regional parkland in Los Angeles County at this time. For every 1,000 residents in Los Angeles County, there is a total of approximately 7 acres of regional parkland. There is a surplus of regional parkland, which exceeds the County's goal for regional parkland (Los Angeles County, 2014). **Figure 3.12-2** shows the County parks present within the EWMP areas.

Many of the cities/Permittees within the EWMP areas have city-owned and -operated parks. Given that a project-level analysis for each structural Best Management Practice (BMP) proposed in the EWMPs is beyond the scope of this Program Environmental Impact Report (PEIR), an extensive listing of each of the participating Permittees' parklands is not provided in this PEIR.

3.12.2 Regulatory Setting

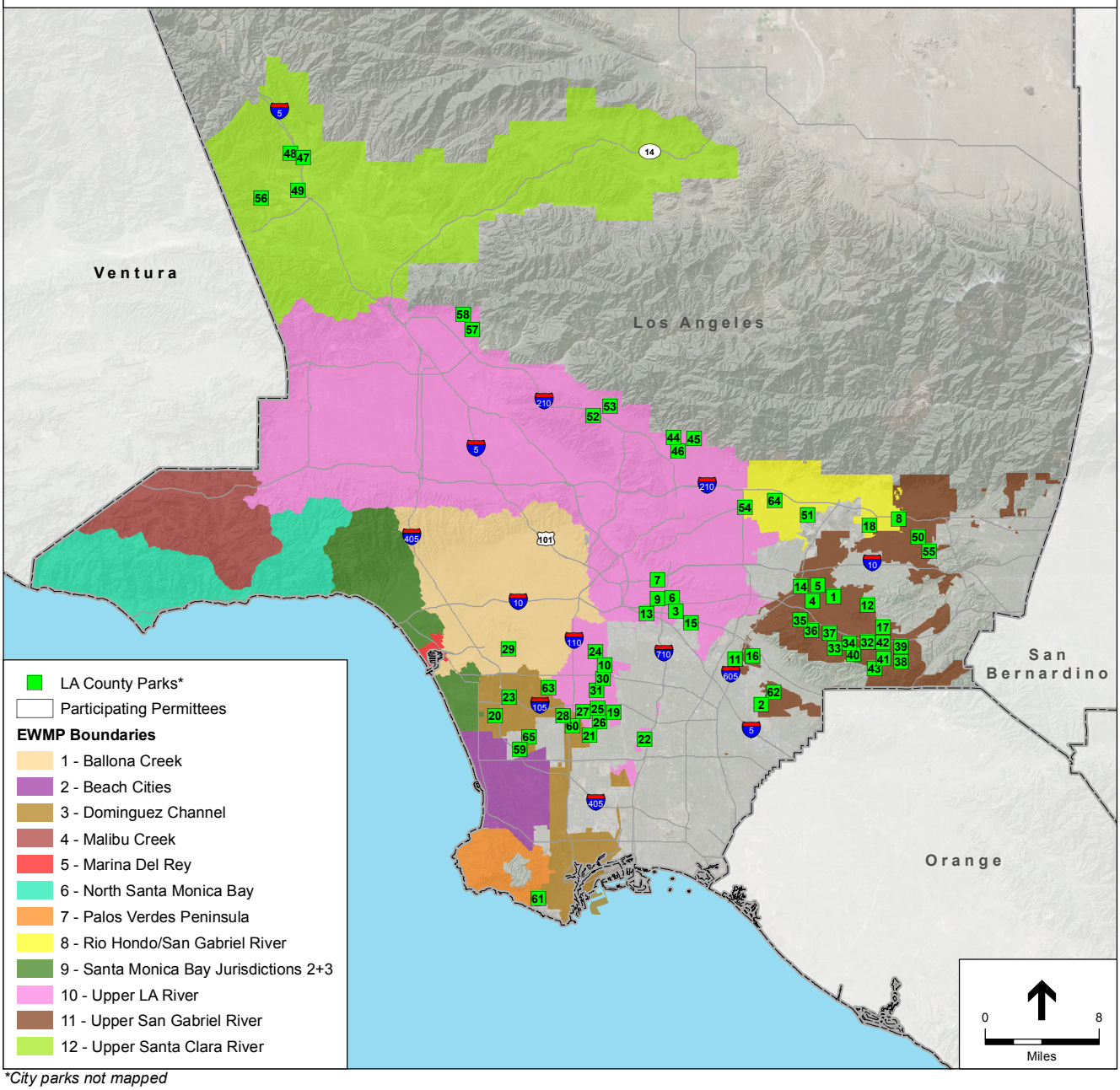
Local

Los Angeles County General Plan

State law requires every city and county to include an Open Space Element in their General Plan. Both the existing and draft County of Los Angeles General Plan include a Parks and Recreation Element that discusses recreational facilities available within the County boundaries, and goals and policies addressing the growing and diverse recreation needs of the region. The following are the parks and recreation goals and policies.

Parks

1 - Allen J. Martin Park
2 - Amelia Mayberry Park
3 - Atlantic Avenue Park
4 - Avocado Heights Park
5 - Bassett Park
6 - Belvedere Park
7 - City Terrace Park
8 - Dalton Park
9 - Eugene A. Obregon Park
10 - Franklin D. Roosevelt Park
11 - McNees Park
12 - Rimgrove Park
13 - Ruben F. Salazar Park
14 - San Angelo Park
15 - Saybrook Park
16 - Sorensen Park
17 - Sunshine Park
18 - Valleydale Park
19 - Mona Park
20 - Del Aire Park
21 - Roy Campanella Park
22 - East Rancho Dominguez Park
23 - Lennox Park
24 - Mary M. Bethune Park
25 - George W. Carver Park
26 - Enterprise Park
27 - Earvin Magic Johnson Park
28 - Helen Keller Park
29 - Ladera Park
30 - Col. Leon H. Washington Park
31 - Ted Watkins Park
32 - Countrywood Park
33 - Thomas S. Burton Park
34 - Pepperbrook Park
35 - Los Robles Park
36 - Manzanita Park
37 - William Steinmetz Park
38 - Bill Blevins Park
39 - Rowland Heights Park
40 - Gloria Heer Park
41 - Trailview Park
42 - Carolyn Rosas Park
43 - Pathfinder Park
44 - Loma Alta Park
45 - Charles C. Farnsworth Park
46 - Charles White Park
47 - Castaic Sports Complex
48 - Del Valle Park
49 - Hasley Canyon Park
50 - Charter Oak Park
51 - Pamela Park
52 - Crescenta Valley Park
53 - Two Strike Park
54 - Michillinda Park
55 - Walnut Creek Park
56 - Val Verde Park
57 - El Cariso Park
58 - Veterans Park
59 - Alondra Park
60 - Athens Park
61 - Deane Dana - Friendship Park
62 - Gunn Avenue Park (Adventure Park)
63 - Jesse Owens Park
64 - Arcadia Park
65 - Bodger Park



City parks not mapped

SOURCE: ESRI.

LA County PEIR EWMP . 140474

Figure 3.12-2
County Park Locations

Existing General Plan 1980

Goal: Provide Outdoor Recreation Areas.

Policy 27: Provide low intensity outdoor recreation in areas of scenic and ecological value compatible with protection of these natural resources.

Policy 28: Develop local parks in urban areas as part of urban revitalization projects, wherever possible.

Draft General Plan 2035

Goal P/R 1: Enhanced active and passive park and recreation opportunities for all users.

Policy P/R 1.4: Promote efficiency by building on existing recreation programs.

Policy P/R 1.5: Ensure that County parks and recreational facilities are clean, safe, inviting, usable and accessible.

Goal P/R 2: Enhanced multi-agency collaboration to leverage resources.

Policy P/R 2.5: Support the development of multi-benefit parks and open spaces through collaborative efforts among entities such as cities, the County, state, and federal agencies, private groups, schools, private landowners, and other organizations.

State law also requires the inclusion of a Safety Element that addresses environmental hazards and other safety concerns and aims to reduce the potential risk of death, injury, and economic damage resulting from natural and man-made hazards. The following presents the goals and policies in the existing and draft County of Los Angeles General Plan Safety Element.

Existing General Plan 1980

Goal: Strengthen County short-term emergency response and long-term recovery capability.

Policy 27: Strengthen the capability of County agencies to effectively respond to earthquake and non-earthquake induced emergencies.

Policy 28: Upgrade regional heavy rescue capability including mobilization operations and resource management.

Policy 29: Encourage critical facilities to maintain and regularly update emergency response plans identifying safety procedures, disaster control capabilities, and evacuation procedures such as drills and exercises.

Policy 30: Upgrade interagency and multijurisdictional communications, planning and decision making to ensure efficient and integrated emergency response capability.

Policy 31: Promote improved cooperation with nonprofit and private sector emergency response organizations.

Policy 35: Strengthen emergency communication systems and improve cooperation between the media and emergency response agencies.

Goal: Continue to promote research on and mapping of natural and urban hazards: and improve safety information systems for planning, emergency response management and hazard mitigation.

Policy 37: Encourage research that will lead to the detailed mapping of ground response (microzonation) of Los Angeles County.

Draft General Plan 2035

Goal S 3: An effective regulatory system that prevents or minimizes personal injury, loss of life, and property damage due to fire hazards.

Policy S 3.9: Adopt by reference the County of Los Angeles Fire Department Strategic Fire Plan, as amended.

Goal S 4: Effective County emergency response management capabilities.

Policy S 4.1: Ensure that residents are protected from the public health consequences of natural or man-made disasters through increased readiness and response capabilities, risk communication, and the dissemination of public information.

Policy S 4.2: Support County emergency providers in reaching their response time goals.

Policy S 4.3: Coordinate with other County and public agencies, such as transportation agencies and health care providers on emergency planning and response activities, and evacuation planning.

Policy S 4.5: Ensure that there are adequate resources, such as sheriff and fire services, for emergency response.

Los Angeles County Strategic Fire Plan

LACFD provides fire, safety, and emergency medical services to the unincorporated areas, as well as to several cities in the County. Their strategic plan is updated yearly and includes department goals and policies the department implements to ensure safety of residents and to carry out the County's public safety mission.

City General Plans and Municipal Codes

The EWMP areas associated with the proposed program are located in multiple jurisdictions of Los Angeles County, which, aside from the County, also includes 46 cities. Each of these cities has their own independent General Plan and municipal code that regulates public service levels

and recreation resources within their jurisdictional boundaries. Given that a project-level analysis for each structural BMP proposed in the EWMPs is beyond the scope of this PEIR, an extensive listing of the public service and recreation policies and goals of each of the participating Permittees is not provided in this PEIR.

3.12.3 Impact Assessment

The proposed program's potential impacts were assessed using the California Environmental Quality Act (CEQA) Guidelines Appendix G Checklist. The following sections discuss the key issue areas identified in the CEQA Guidelines with respect to the proposed program's potential effects on public services and recreational resources.

Thresholds of Significance

For the purposes of this PEIR and consistency with Appendix G of the CEQA Guidelines, the project would have a significant impact on public services if the project would:

- Result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:
    - Fire protection
    - Police protection
    - Schools
    - Parks
    - Other public facilities

Implementation of the proposed project may result in a potentially significant impact to recreational resources if the projects would:

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
- Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

Program Impact Discussion

Fire Protection Services

Impact 3.12-1: The proposed program could result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered governmental fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection services.

Structural (Regional, Centralized, and Distributed) BMPs

Distributed BMPs are most likely to be implemented in high-density urban, commercial, industrial, and transportation areas where they would either replace or improve upon existing stormwater infrastructure. These types of BMPs are generally "retrofit"-type projects that replace existing impervious surfaces with pervious surfaces such as bioinfiltration cells, bioswales, porous pavement, and filter strips that tie into existing stormwater management systems. These projects may also augment the existing stormwater management systems with additional inlet screens, filter media systems, sediment removal systems, and diversions to sanitary sewer lines. Ground disturbance for distributed BMPs is typically less than 1 to 2 acres in extent, but may extend in some limited applications up to 5 acres where space is available. Centralized structural BMPs use similar elements to the types of BMPs used in distributed structural BMPs, but also collect, store, treat, and filter stormwater from multiple parcels and much larger drainage areas. Like centralized BMPs, regional BMPs can be implemented in a broad range of land use types, from high-density urban to open space, and can have multiple benefits (habitat, recreation, aesthetics, etc.). Centralized and regional structural BMPs require greater footprints for construction and implementation. Regional and centralized BMPs have similar construction methods.

The structural BMPs associated with the proposed program would be installed to treat existing water quality impairments and would not contribute to an increased need for fire protection services. The structural BMPs are not habitable structures, would not be constructed with flammable materials, and would not require fire protection services. Because of the relative scale of these infrastructure improvements, the construction of the various structural BMPs are not expected to result in the need for new or physically altered fire protection facilities. However, construction of new structural BMPs in streets, sidewalks, parkland, or other facilities (these may include public service facilities such as police stations, fire stations, and municipal maintenance yards) within existing high-density urban, commercial, industrial, and transportation areas, as well as associated staging areas, could temporarily disrupt the provision of fire services, resulting in potentially significant impacts. Implementation of **Mitigation Measure PS-1** (construction noticing) would reduce potential impacts to a less-than-significant level.

> **Mitigation Measure:**
>
> **PS-1:** The Permittee implementing the EWMP project shall provide reasonable advance notification to service providers such as fire, police, and emergency medical services as well as to local businesses, homeowners, and other residents adjacent to and within areas potentially affected by the proposed EWMP project about the nature, extent, and duration of construction activities. Interim updates should be provided to inform them of the status of the construction activities.
>
> **Significance Determination:** Less than significant with mitigation (The application of this mitigation measure to specific BMP types and categories are identified in Table 3.12-2.)

Non-Structural (Institutional) BMPs

The non-structural BMPs associated with the proposed program would consist of standards and policies related to development and maintenance activities in mostly urban areas. The non-

structural BMPs would not contribute to an increase in population within the project area, and would therefore not result in the need for new or physically altered fire protection facilities. There would be no impact.

Mitigation Measures: None required

Significance Determination: No impact

Police Protection Services

Impact 3.12-2: The proposed program could result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered governmental police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection services.

Structural (Regional, Centralized, and Distributed) BMPs

The structural BMPs associated with the proposed program would not contribute to an increase in population requiring police protection services. The structural BMPs are not habitable structures; they include mostly unobtrusive structures such as bioswales, pervious pavement, and bioretention areas and are not expected to be of a nature that would require police protection services. Larger-size regional and centralized BMPs could be located in public open spaces such as parks and large parking lots, but would not result in an increased need for police services. Centralized BMPs may include larger-scale diversion and treatment systems that may require added security systems to protect operating systems. These added security systems will be part of the design process and operation and maintenance of these facilities. The structural BMPs would therefore not result in the need for new or physically altered police protection facilities, as there would be no increase in the demand for police protection services.

Mitigation Measure: None required

Significance Determination: Less than significant

Non-Structural (Institutional) BMPs

Consisting of standards and activities designed to protect surface water quality, the non-structural BMPs associated with the proposed program are not expected to result in substantial increases of criminal activity and would not result in the need for new or physically altered police protection facilities. There would be no impact.

Mitigation Measures: None required

Significance Determination: No impact

Schools

Impact 3.12-3: The proposed program could result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools.

Structural (Regional, Centralized, and Distributed) BMPs

The structural BMPs associated with the proposed program would consist of structures such as bioinfiltration cells, bioswales, porous pavement and filter strips, low-flow diversions, detention ponds, treatment wetlands, and stream/creek restoration projects; it would not increase the population in the project area, so it would not generate additional students. However, some of the structural BMPs may be installed on school facilities, on or under large grassy fields typically found on school sites. Large open space areas that can be found on school sites offer potential opportunities for infiltration and recharge areas. Such impacts would be analyzed on a site-specific basis as projects are brought forward and will be reviewed under a subsequent CEQA process. However, because of the short construction period of the types of structural BMPs under consideration, construction activities would not be anticipated to significantly affect the operation of existing school facilities such that new or physically altered facilities would be required. In addition, the long-term operation of the structural BMPs would not likely affect the operation of existing school facilities because of the relatively small scale and design of these structural BMPs. Impacts would be less than significant.

Mitigation Measures: None required

Significance Determination: Less than significant

Non-Structural (Institutional) BMPs

The non-structural BMPs would consist of standards and activities designed to protect surface water quality, and would not increase population within the project area. Therefore, these BMPs would not result in the need for new or physically altered school facilities. There would be no impact.

Mitigation Measures: None required

Significance Determination: No impact

Increased Use of Recreational Facilities

Impact 3.12-4: The proposed program could increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

Structural (Regional, Centralized, and Distributed) BMPs

The structural BMPs would not contribute to an increase in population and an associated increase in existing recreational facilities that could result in physical deterioration of existing facilities.

Some of the structural BMPs associated with the proposed program are anticipated to be located on existing parkland, as these open space areas offer ample area for potential subsurface spreading and infiltration. During the construction of such infrastructure, certain parts of selected parks and recreational facilities would temporarily be removed from service. Bike lanes and other linear recreational resources may also be affected by construction activities. Therefore, the construction of structural BMPs could temporarily limit the usage of the parks on which they are located, thereby potentially temporarily increasing the use at adjacent parks. Such temporary limits on access to parks and recreational resources may create increased demand on other parks and recreational resources within the EWMP area.

Once constructed, the structural BMPs would be in-ground or compatible with open space uses. The structural BMPs would operate passively and consist of mostly unobtrusive structures such as bioinfiltration cells, bioswales, porous pavement and filter strips, low-flow diversions, detention ponds, treatment wetlands, and stream/creek restoration projects. Construction periods for each BMP are expected to be relatively short, typically several months to a year. Because the construction will be temporary, the physical deterioration of park and recreational facilities to which recreational activities were diverted would not be substantial. The structural BMPs operated as part of the proposed program would be compatible with recreational and park-set activities; therefore, no impacts would occur during operation. Thus, construction and operation of structural BMPs would not increase the use of adjacent recreational facilities in such a way that would physically deteriorate them.

Mitigation Measures: None required

Significance Determination: Less than significant

Non-Structural (Institutional) BMPs

The non-structural BMPs associated with the proposed program would include programs that would lead to the establishment of various standards and/or physical maintenance activities, such as street sweeping. These BMPs would be preventative of water quality degradation and would not directly result in population growth or displace any existing recreational resources that would thereby result in the increased use of neighborhood or regional recreational resources. Therefore, they would not result in physical deterioration of existing facilities. There would be no impact.

Mitigation Measures: None required

Significance Determination: No impact

Inclusion of Recreational Facilities

Impact 3.12-5: The proposed program could include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Structural (Regional, Centralized, and Distributed) BMPs

The structural BMPs associated with the proposed program would not require the construction or expansion of recreational facilities, although some BMPs may be located within existing parks or would create new public park space. Implementation of these BMPs would not increase the population and would therefore not create a need for the construction of new or expansion of existing recreational facilities. The structural BMPs constructed and operated as part of the proposed program, if it is approved, would be located on existing recreational facilities and would be compatible with recreational uses during operation. Therefore, the BMPs would not impact parkland in such a way that would require its expansion or the creation of new parkland. Impacts would be less than significant.

Mitigation Measures: None required

Significance Determination: Less than significant

Non-Structural (Institutional) BMPs

The non-structural BMPs associated with the proposed program would not include recreational facilities. Non-structural BMPs would consist of programs and policies that would include development guidelines and activities designed to prevent surface water quality degradation, and would not specifically result in the construction of new or expansion of existing recreational facilities. There would be no impact.

Mitigation Measures: None required

Significance Determination: No impact

Cumulative Impact Discussion

Structural (Regional, Centralized, and Distributed) BMPs

BMPs would be constructed throughout the watersheds. None of the facilities individually or cumulatively would increase population; require additional police, fire, or emergency services; or result in construction of new schools. Most of the distributed BMPs would be small in scale and would not result in cumulatively significant impacts to public services. Similarly, the larger regional and centralized BMPs would not result in cumulatively significant impacts to public services, but may instead provide multiple benefits by increasing public open space in urban areas. Therefore, the program's potential contribution to cumulative effects on public services and recreation is considered less than significant.

Mitigation Measures: Mitigation Measure **PS-1** (The application of this mitigation measure to specific BMP types and categories is identified in Table 3.12-2.)

Significance Determination: Less than significant with mitigation

Non-Structural (Institutional) BMPs

The non-structural BMPs associated with the proposed program would not result in impacts to public services or recreational facilities, as these BMPs will not consist of any physical construction. There would be no impact.

Mitigation Measures: None required

Significance Determination: No impact

3.12.4 Summary of Impact Assessment

Table 3.12-2 shows a summary of the structural BMPs requiring mitigation.

TABLE 3.12-2
SUMMARY OF PUBLIC SERVICES AND RECREATION IMPACTS REQUIRING MITIGATION MEASURES

	Thresholds of Significance					
Structural BMPs	**Adverse physical impacts due to new or altered fire protection facilities**	**Adverse physical impacts due to new or altered police facilities**	**Adverse physical impacts due to new or altered schools**	**Increased use of recreational facilities**	**Construction of recreational facilities**	**Cumulative Impacts**
Applicable Mitigation Measures:	**PS-1**	**None Required**	**None Required**	**None Required**	**None Required**	**PS-1**
Regional BMPs						
Regional Retention and Infiltration	Yes	No	No	No	No	Yes
Regional Capture, Detention and Use	Yes	No	No	No	No	Yes
Centralized BMP						
Biofiltration	Yes	No	No	No	No	Yes
Constructed Wetlands	Yes	No	No	No	No	Yes
Treatment/Low-Flow Diversions	Yes	No	No	No	No	Yes
Creek, River, Estuary Restoration	Yes	No	No	No	No	Yes
Distributed BMPs						
Site Scale Detention	Yes	No	No	No	No	Yes
LID – Infiltration/Filtration BMPs – Porous Pavement, Green Streets, Bioswale/Filter Strips, downspout disconnects	Yes	No	No	No	No	Yes
LID – Green Infrastructure – Capture and Use – Cisterns, Rain Barrels, Green roofs, Planter Boxes	Yes	No	No	No	No	Yes
Flow-through Treatment BMPs	Yes	No	No	No	No	Yes
Source Control Treatment BMPs (catch basin inserts/screens, hydrodynamic separators, gross solids removal devices)	Yes	No	No	No	No	Yes
Low-Flow Diversions	Yes	No	No	No	No	Yes

NOTE: These conclusions are based on typical size and function of BMPs.

3.13 Transportation and Circulation

This section discusses the setting, regulatory framework, and impacts and mitigation measures regarding traffic and transportation services in the Enhanced Watershed Management Program (EWMP) areas. Temporary impacts related to construction of Best Management Practices (BMPs) have been identified and analyzed throughout the section.

3.13.1 Environmental Setting

Regional and Local Roadways

The network of regional and local roadways in the potentially affected areas of the EWMP areas consists of interstate freeways (e.g., I-405, I-710, and I-210), state highways (e.g., State Route [SR] 1, and SR 60), and numerous local roads that are under the jurisdiction of a particular city or Los Angeles County Department of Public Works. Local roads provide access to the individual project work sites and also provide a connection between local land uses and major thoroughfares.

Public Transportation

Public transit service is provided by various agencies in the study area; for example, the Los Angeles County Metro, Torrance Transit, and the Los Angeles Department of Transportation Transit Service. Buses serve local and regional needs for public transportation with varying frequencies.

Bicycle and Pedestrian Transportation

The regional network of bicycle facilities includes a variety of Class I (bicycle paths), Class II (bicycle lanes, striped in roads), and Class III (bicycle routes without striping) bikeways within the cities and communities in the EWMP study areas. Pedestrian facilities consist of sidewalks and intersection crosswalks in built-up areas.

Truck Routes

Cities often develop a truck route plan, which designates truck routes to provide contractors with the preferred travel roadways to and from connecting local roadways. For example, the cities of Torrance and Los Angeles have such plans. Los Angeles County has a similar system of truck routes for unincorporated areas.

3.13.2 Regulatory Setting

State

California Department of Transportation

The California Department of Transportation (Caltrans) is responsible for planning, designing, constructing, operating, and maintaining all state highway and interstate freeway systems. As a result, any change to the state roadway system requires an Encroachment Permit from Caltrans.

Caltrans' construction practices require temporary traffic control planning "during any time the normal function of a roadway is suspended" (Caltrans, 2012). In addition, Caltrans has the discretionary authority to issue special permits for the movement of vehicles/loads exceeding statutory limitations on the size, weight, and loading of vehicles contained in Division 15 of the California Vehicle Code. Requests for such special permits require the completion of an application for a Transportation Permit. The California Highway Patrol is notified about transportation of oversize/overweight loads. In addition to maintaining highways, and general regulations and laws dealing with licensing, traffic signage, and other noncommercial driver requirements, state laws and regulations also govern motor carriers on roadways within the state.

Local

County and City Land Use Regulations and Ordinances

Local regulations and ordinances vary widely in the program area. Traffic-related policies included in General Plans typically concern traffic resulting from project operation rather than project construction. However, some local jurisdictions incorporate restrictions to their General Plans that pertain to construction activities in or through their jurisdictional areas, such as assigning truck traffic routes or requiring the development of Traffic Control Plans.

3.13.3 Impact Assessment

Approach and Methods

This section assesses the transportation impacts that could result from the implementation of the proposed structural and non-structural BMPs. Because of the geographic scale of the program area and the range of actions that fall within the scope of the proposed program, this impact assessment was conducted at a programmatic level. Assumptions regarding the types of transport and the types of roads used to haul materials were used to assess the overall significance of program impacts. In determining the level of significance, the assessment assumed that the implementation of the proposed BMPs would comply with relevant federal, state, and local laws, regulations, ordinances, and guidance. It is assumed that supplemental project-level analysis of transportation-related impacts (e.g., traffic safety analysis of heavy vehicles traveling on, and turning onto and off of, local roads) would be required for site-specific structural BMPs prior to commencement of construction activity.

Thresholds of Significance

The California Environmental Quality Act (CEQA) defines a significant effect on the environment as a substantial, or potentially substantial, adverse change in the physical conditions of the area affected by a project. An impact related to transportation would be considered significant if it would result in any of the following, which are from Appendix G of the CEQA Guidelines:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant

components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

- Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment).
- Result in inadequate emergency access.
- Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

The following discussion of environmental impacts is limited to those potential impacts that could result in some level of potentially significant environmental change, as defined by CEQA. The project site is located in the County of Los Angeles, which has established level-of-service standards and a congestion management program that are intended to monitor and address long-term traffic impacts resulting from future development, but do not apply to temporary impacts associated with construction projects (bullet 2 in the list of guidelines). In addition, implementation of the proposed program would not affect air traffic patterns of airports in the program area (bullet 3 above). Also, implementation of the proposed program would not directly or indirectly eliminate existing or planned alternative transportation corridors or facilities (bicycle paths, lanes, bus turnouts, etc.), include changes in policies or programs that support alternative transportation, or construct facilities in locations in which future alternative transportation facilities are planned (bullet 6 in the list of guidelines). Therefore, no impact would occur under these three categories, and these categories are not discussed further within this section.

Program Impact Discussion

Effects on Performance of the Traffic Circulation System

Impact 3.13-1: The proposed program could intermittently and temporarily increase traffic levels and traffic delays due to vehicle trips generated by construction workers and construction vehicles on area roadways.

Structural (Regional, Centralized, and Distributed) BMPs

Implementation of the proposed program would involve the installation of structural control measures that would be constructed as BMPs to reduce the impact of stormwater and non-stormwater on receiving water quality within the EWMP areas. The construction activities for the proposed distributed, centralized, and regional structural BMPs would generally require similar processes such as removal of existing aboveground and/or surface materials, ground disturbance (e.g., site preparation and grading), and construction of the structural control measure. The intensity and nature of the construction activity required for the different structural BMPs would vary, and the number of vehicle trips generated by that activity would similarly vary. A general description of the anticipated construction activities that would be required for each of the various

types of distributed, centralized, and regional structural BMPs are provided in Chapter 2.0, *Project Description*, of this Program Environmental Impact Report (PEIR). Construction activities of the various structural BMPs proposed in the EWMPs are anticipated to occur intermittently in the future, and would be subject to change, as the EWMPs are also planning documents that will be revised periodically to reflect new data, further modeling, emerging technologies, and results of BMP assessments. As such, the proposed locations of individual BMPs are subject to change throughout the EWMP process. Definitive construction equipment lists, material lists, construction methods, construction schedules, and workforce details would be developed in the future as specific structural BMP projects are finalized according to the EWMPs.

Vehicle trips would be generated primarily by construction workers commuting to and from the BMP work sites, and by trucks hauling materials and equipment to and from the sites. Construction equipment would be delivered to and removed from each site as needed. The construction traffic impacts associated with each individual structural BMP project would be short-term in nature and limited to the period of time when construction activity is taking place for that particular project. The primary off-site impacts resulting from the movement of construction trucks would include a short-term and intermittent lessening of roadway capacities due to the slower movements and larger turning radii of the trucks compared to passenger vehicles. Drivers could experience delays if they were traveling behind a heavy truck. The added traffic would be most apparent on the local roadways serving the facility sites. Although project-related traffic would be temporary, supplemental project-level analysis of potential site-specific impacts could determine that addition of project-generated traffic would be considered substantial in relation to traffic flow conditions on local roadways. For this program-level assessment, this impact is considered potentially significant.

To reduce the potential construction traffic impacts associated with the structural BMP projects, **Mitigation Measure TRAF-1** would be implemented; it would require all construction activities to be conducted in accordance with an approved construction traffic control plan. This would serve to reduce the construction-related traffic impacts to the maximum extent feasible. Thus, through the environmental review and development permit process, subsequent project-specific analysis by implementing agencies would be needed to determine specific required elements of the traffic control plans.

Mitigation Measures:

TRAF-1: For projects that may affect traffic, implementing agencies shall require that contractors prepare a construction traffic control plan. Elements of the plan should include, but are not necessarily limited to, the following:

- Develop circulation and detour plans to minimize impacts to local street circulation. Use haul routes minimizing truck traffic on local roadways to the extent possible.

- To the extent feasible, and as needed to avoid adverse impacts on traffic flow, schedule truck trips outside of peak morning and evening commute hours.

- Install traffic control devices as specified in Caltrans' Manual of Traffic Controls for Construction and Maintenance Work Zones where needed to maintain safe driving conditions. Use flaggers and/or signage to safely direct traffic through construction work zones.

- Coordinate with facility owners or administrators of sensitive land uses such as police and fire stations, hospitals, and schools. Provide advance notification to the facility owner or operator of the timing, location, and duration of construction activities.

Significance Determination: Less than significant with mitigation (The application of this mitigation measure to specific BMP types and categories are identified in Table 3.13-1.)

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, there would be no impacts related to transportation and traffic.

Mitigation Measures: None required

Significance Determination: No impact

Traffic Safety Hazards

Impact 3.13-2: Construction of the proposed program could potentially cause traffic safety hazards for vehicles, bicyclists, and pedestrians on public roadways, and could increase traffic hazards due to possible road wear.

Structural (Regional, Centralized, and Distributed) BMPs

The construction activities for the proposed distributed, centralized, and regional structural BMPs would not alter the physical configuration of the existing roadway network serving the area, and would not introduce unsafe design features. Impacts would be less than significant...

Curb and traffic flow designs would be subject to the design requirements imposed by local Departments of Traffic. Freeways, major arterials, and collectors are designed to accommodate a mix of vehicle types, including heavy trucks needed for temporary construction activities; therefore, impacts to traffic safety would be less than significant.

Mitigation Measures: None required

Significance Determination: Less than significant

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, there would be no impacts related to transportation and traffic.

Mitigation Measures: None required

Significance Determination: No impact

Inadequate Emergency Access

Impact 3.13-3: The proposed program could result in inadequate emergency access during construction.

Structural (Regional, Centralized, and Distributed) BMPs

Construction trucks generated by the individual structural BMP projects would interact with other vehicles on project area roadways, including emergency vehicles, but would not alter the physical configuration of the existing roadway network serving the area. As such, while individual emergency vehicles could be slowed if travelling behind a slow-moving truck, per vehicle code requirements, vehicles must yield to emergency vehicles using a siren and red lights. Lane closures would be subject to local Departments of Traffic requiring coordination with emergency providers. This potential impact is considered to be less than significant.

Mitigation Measures: None required

Significance Determination: Less than significant impact

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, there would be no impacts related to transportation and traffic.

Mitigation Measures: None required

Significance Determination: No impact

Cumulative Impact Discussion

Impact 3.13-4: Construction of the proposed program could contribute to cumulative impacts to traffic and transportation (traffic congestion, traffic safety, and emergency vehicle access).

Structural (Regional, Centralized, and Distributed) BMPs

The geographic scope of potential cumulative traffic impacts includes access routes to regional and local roadways used for haul routes and construction equipment/vehicle access throughout the project area. Given the dispersion of individual structural BMP project construction vehicle trips over the study area, and the fact that the trips would occur over the course of each workday, the project-related traffic on any one roadway during any hour of the day would not be substantial, and the contribution to cumulative traffic conditions would be less than significant.

However, constructing the structural BMPs could result in intermittent and temporary traffic-related impacts in the cumulative context. Traffic impacts include temporary increases in traffic congestion and increased potential for traffic safety hazards. The project has the potential to contribute to potentially significant cumulative construction-related impacts as a result of (1) cumulative projects (such as land development projects) that generate increased traffic at the same time on the same roads as would the proposed program, causing increased congestion and delays; and (2) infrastructure projects in roads that would be used by project construction workers and trucks, which could delay project-generated vehicles past the work zones of those other projects.

The structural BMPs associated with the proposed program would be constructed in multiple jurisdictions of Los Angeles County, which aside from the County also includes 46 cities and LACFCD. As such, these structural BMP projects would be generally spread over a large geographic area within the County. These structural BMPs, in combination with other current and planned projects in the County, would result in an increase in construction-related traffic levels, which would temporarily increase the levels of congestion on roadways in areas where a construction project would occur. However, each construction project occurring in the multiple municipalities of the County would be subject to the applicable regulations (e.g., traffic control plans) established by their respective municipalities. Nonetheless, temporary increases in traffic would occur as a result of construction activities under the proposed program along with other related project construction activities in the County. Where a related project is located in proximity to a structural BMP site and is constructed concurrently with the structural BMP, the combined construction traffic levels could have a cumulative effect on nearby roadways. Thus, under circumstances where these simultaneous construction activities would occur in proximity to roads with existing congestion, the cumulative traffic impacts related to a substantial temporary or periodic increase in ambient traffic levels could be cumulatively considerable.

However, with implementation of traffic control plans for each project that has the potential to increase traffic, including circulation and detour plans, traffic control devices, and scheduling (to the extent feasible) truck trips outside of peak morning and evening commute hours (as identified in **Mitigation Measure TRAF-1**) the project's contribution to the cumulative impacts from construction would be minimal. Once constructed, no impacts to traffic would result. Therefore, the contribution of structural BMPs to cumulative traffic conditions is less than significant.

Mitigation Measures: Implementation of **Mitigation Measure TRAF-1**

Significance Determination: Less than significant with mitigation (The application of these mitigation measures to specific BMP types and categories are identified in Table 3.13-1.)

Non-Structural (Institutional) BMPs

As discussed in Chapter 2.0, *Project Description*, non-structural/institutional BMPs do not include the construction of new facilities. Consequently, there would be no cumulative impacts related to transportation and traffic.

Mitigation Measures: None required

Significance Determination: No impact

3.13.4 Summary of Impact Assessment

Table 3.13-1 shows a summary of the structural BMPs requiring mitigation.

TABLE 3.13-1
SUMMARY OF TRANSPORTATION AND CIRCULATION IMPACTS REQUIRING MITIGATION MEASURES

	Thresholds of Significance			
Structural BMPs	**Traffic Circulation**	**Traffic Safety**	**Emergency Access**	**Cumulative Impacts**
Applicable Mitigation Measures:	**TRAF-1**	**None Required**	**None Required**	**TRAF-1**
Regional BMPs				
Regional Detention and Infiltration	Yes	No	No	Yes
Regional Capture, Detention and Use	Yes	No	No	Yes
Centralized BMPs				
Bioinfiltration	Yes	No	No	Yes
Constructed Wetlands	No	No	No	No
Treatment/Low-Flow Diversions	No	No	No	No
Creek, River, Estuary Restoration	No	No	No	No
Distributed BMPs				
Site Scale Detention	No	No	No	No
LID – Infiltration/Filtration BMPs – Porous Pavement, Green Streets, Bioswale/Filter Strips, downspout disconnects	No	No	No	No
LID – Green Infrastructure – Capture and Use – Cisterns, Rain Barrels, Green roofs, Planter Boxes	No	No	No	No
Flow-through Treatment BMPs	No	No	No	No
Source Control Treatment BMPs (catch basin inserts/screens, hydrodynamic separators, gross solids removal devices)	No	No	No	No
Low-Flow Diversions	No	No	No	No

NOTE: These conclusions are based on typical size of BMPs and the need for hauling materials off-site during construction.

3.14 Utilities, Service Systems, and Energy

This section discusses existing utilities and service systems in the County of Los Angeles, presents the associated regulatory framework, and provides an analysis of potential impacts to utilities and service systems that would result from implementation of the proposed program. Public utilities and utility systems in the program area include: water, wastewater, stormwater, solid waste, and energy. The following discussion describes existing utilities and service systems in the program area.

3.14.1 Environmental Setting

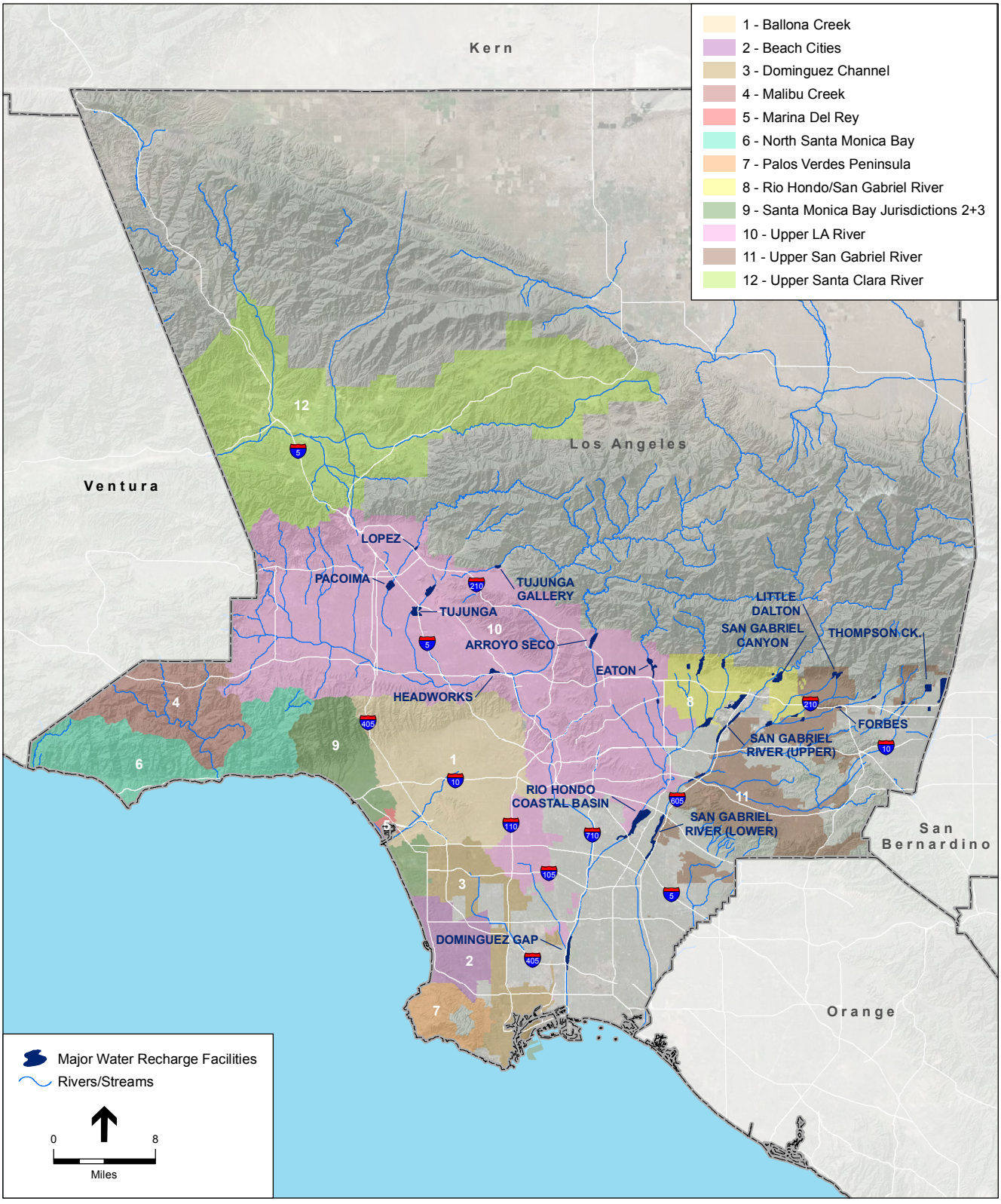
Water Agencies

Several water agencies participate in delivering water from its source to retail customers and households in Los Angeles County. Water supplies include local surface and groundwater, imported surface water, captured and recharged stormwater, and recycled water. The California Department of Water Resources operates and maintains the State Water Project that imports water from the Sacramento River Delta to Southern California. The Metropolitan Water District (Metropolitan) buys imported State Water Project water, imports water from the Colorado River through the Colorado River Aqueduct, and wholesales water to its member agencies. Other water wholesalers in Los Angeles County include the Central Basin Municipal Water District, West Basin Municipal Water District, Upper San Gabriel Valley Municipal Water District, Castaic Lake Water Agency, Las Virgenes Municipal Water District, Three Valleys Municipal Water District, and Antelope Valley–East Kern Water Agency. Water wholesalers provide water to retail customers; some are agencies of cities or counties, some are private companies, and some are special districts. There are several water purveyors that supply water to the Enhanced Watershed Management Program (EWMP) areas of Los Angeles County (Los Angeles County, 2014), as listed in **Table 3.14-1**.

According to Metropolitan, approximately 55 percent of water supplies in Southern California are imported, and 45 percent are supplied by local groundwater basins that are recharged naturally from rainfall and through constructed recharge facilities (MWD, 2010). Local supplies fluctuate in response to variations in rainfall. Stormwater recharge facilities currently augment local groundwater supplies in the region by an estimated 477,000 acre-feet per year (MWD, 2014). Studies have estimated about 1 million acre-feet per year of stormwater in the region is not captured (MWD, 2014). The largest stormwater detention and recharge facilities in Los Angeles County are located along the San Gabriel River in the City of Pico Rivera. These facilities, shown in **Figure 3.14-1, Water Recharge Facilities**, were constructed in the 1930s when the river levees were significantly improved. These groundwater recharge facilities are also used to recharge recycled water conveyed from the Los Coyote Hills Treatment Plant.

TABLE 3.14-1
EWMP AREA WATER PURVEYORS

Group Name	Permittees Involved	Water Agency
Ballona Creek	Beverly Hills, Culver City, Inglewood, Los Angeles, Santa Monica, West Hollywood, Los Angeles County, LACFCD	Beverly Hills Public Works; Central Basin Municipal Water District; West Basin Municipal Water District; Santa Monica Public Works; LADWP
Beach Cities Watershed Management Group	Hermosa Beach, Manhattan Beach, Redondo Beach, Torrance, LACFCD	West Basin Municipal Water District; Torrance Public Works
Dominguez Channel Watershed Management Group	El Segundo, Hawthorne, Inglewood, Los Angeles, Lomita, Los Angeles County, LACFCD	West Basin Municipal Water District; LADWP
Malibu Creek Watershed	Agoura Hills, Calabasas, Hidden Hills, Westlake Village, Los Angeles County, LACFCD	Las Virgenes Municipal Water District
Marina Del Rey	Culver City, Los Angeles, Los Angeles County, LACFCD	West Basin Municipal Water District; LADWP
North Santa Monica Bay Coastal Watersheds	Los Angeles County, Malibu, LACFCD	West Basin Municipal Water District; Los Angeles County Waterworks Districts
Palos Verdes Peninsula EWMP Agencies	Palos Verdes Estates, Rancho Palos Verdes, Rolling Hills Estates, Los Angeles County, LACFCD	West Basin Municipal Water District
Rio Hondo/San Gabriel River Water Quality Group	Arcadia, Azusa, Bradbury, Duarte, Monrovia, Los Angeles County, Sierra Madre, LACFCD	Three Valleys Municipal Water District; Upper San Gabriel Valley Municipal Water District
Santa Monica Bay Watershed Jurisdictions 2 and 3	Los Angeles, El Segundo, Santa Monica, Los Angeles County, LACFCD	West Basin Municipal Water District; LADWP; Santa Monica Public Works
Upper Los Angeles River Watershed	Alhambra, Burbank, Calabasas, Glendale, Hidden Hills, La Canada Flintridge, Los Angeles, Montebello, Monterey Park, Pasadena, Rosemead, San Gabriel, San Marino, South Pasadena, Temple City, Los Angeles County, LACFCD	Alhambra Public Works Department; Burbank Water and Power; Foothill Municipal Water District; Glendale Water and Power; Crescenta Valley Water District; Las Virgenes Municipal Water District; LADWP; Central Basin Municipal Water District; Upper San Gabriel Valley Municipal Water District; California-American Water Company
Upper San Gabriel River	Baldwin Park, Covina, Glendora, Industry, La Puente, Los Angeles County, LACFCD	Upper San Gabriel Valley Municipal Water District
Upper Santa Clara River Watershed	Los Angeles County, Santa Clarita, LACFCD	Santa Clarita Water Division



SOURCE: ESRI; Los Angeles County GIS

LA County PEIR EWMP . 140474

Figure 3.14-1

Water Recharge Facilities

Wastewater

Several wastewater agencies participate in providing wastewater collection and treatment for the EWMP areas. The EWMP areas fall within the Sanitation Districts of Los Angeles County, the City of Los Angeles Bureau of Sanitation, and Las Virgenes Municipal Water District wastewater system service areas.

The Sanitation Districts are a partnership of 24 independent special districts that serve the wastewater and solid waste management needs of approximately 5.5 million people in Los Angeles County (County). The Sanitation Districts' service area covers approximately 824 square miles and encompasses 78 cities and unincorporated territory within the County. Within the Sanitation Districts' service area, there are approximately 9,500 miles of sewers that are owned and operated by the cities and County that are tributary to the Sanitation Districts' wastewater collection system. The Sanitation Districts own, operate, and maintain approximately 1,400 miles of sewers, ranging from 8 to 144 inches in diameter, that convey approximately 500 million gallons per day of wastewater to 11 wastewater treatment plants. Included in the Sanitation Districts' wastewater collection system are 48 active pumping plants located throughout the County. In the interest of promoting better health and safety protection for those who engage in water contact activities in coastal areas bordered by the Sanitation Districts service area, the Sanitation Districts have consented, where justified, to accept the diversion of dry-weather urban runoff into the sewer system. The agencies responsible for the stormwater collection system are required to obtain permits from the Sanitation Districts, install equipment to remove gross solids, provide the means for measuring flow, and pay appropriate fees.

The City of Los Angeles Bureau of Sanitation provides wastewater treatment to the City of Los Angeles, as well as several unincorporated areas next to the City of Los Angeles. The Bureau of Sanitation operates and maintains its own wastewater collection and treatment systems with over 6,500 miles of sewers that serve more than four million residential and business customers in Los Angeles and 29 contracting cities and agencies. These sewers are connected to the City of Los Angeles' four wastewater and water reclamation plants that process an average of 550 million gallons of wastewater each day of the year. The City of Los Angeles Department of Public Works have implemented several low-flow diversion systems along the coast that divert urban dry-weather runoff and other types of non-stormwater from the storm drain system into the sewer system for treatment by the City of Los Angeles Hyperion Sewer Treatment Plant. Some of the low-flow diversion systems are being upgraded and, to convey the increased diverted stormwater flows from the low-flow diversion systems to the Hyperion Treatment Plant, the Coastal Interceptor Relief Sewer (CIRS) was constructed to provide additional capacity to the existing sewer system.

Las Virgenes Municipal Water District and the Triunfo Sanitation District (that serves a portion of Ventura County) share a service area in the Malibu Creek watershed. The Tapia Water Reclamation Facility and the Rancho Las Virgenes Composting Facility are owned by the Las Virgenes – Triunfo Joint Powers Authority and operated by Las Virgenes Municipal Water District personnel.

Table 3.14-2 lists the major municipal wastewater treatment plants in the EWMP areas. Each of these facilities provides treatment for daily wastewater flows and is designed with augmented hydraulic capacity to receive and discharge peak flows that enter the system during storm events.

TABLE 3.14-2
EWMP AREA WASTEWATER TREATMENT PLANTS

Water Reclamation Plants (WRP)	Rated Capacity (mgd)	Average Daily Flow 2013 (mgd)
Hyperion	450	362
Joint Water Pollution Control Plant (JWPCP)	400	264
La Cañada WRP	0.2	0.1
Los Angeles/Glendale WRP	20	20
Long Beach WRP	25	17
Los Coyotes WRP	37.5	21
Saugus WRP	6.2	5.2
San Jose Creek WRP	100	63
Tapia WRF	16	9.5
Tillman WRP	80	67
Whittier Narrows WRP	15	8.6
Valencia WRP	21.6	15.7

mgd = million gallons per day

SOURCES: Sanitation Districts of Los Angeles County website: http://www.lacsd.org/wastewater/wwfacilities/default.asp; Los Angeles County, 2014; Santa Clarita, 2010; LACSD, 2014).

Stormwater

The Los Angeles County Flood Control District (LACFCD) encompasses more than 3,000 square miles, 85 cities, and approximately 2.1 million land parcels. It includes the vast majority of drainage infrastructure within incorporated and unincorporated areas in every watershed, including 500 miles of open channel, 2,800 miles of underground storm drains, and an estimated 120,000 catch basins. In addition to the County maintaining regional storm drain structures, many of the cities within the EWMP study areas maintain storm drains within their respective city boundaries.

A low-flow diversion is a structural system that diverts potentially polluted, dry-weather flow to be treated, usually at a sewage treatment plant, before being discharged into the ocean. Several coastal cities have installed low-flow diversion systems that divert dry-weather flows to local treatment plants. For example, the City of Santa Monica operates the Santa Monica Urban Runoff Recycling Facility (SMURRF), which treats dry-weather runoff water (from excessive irrigation, spills, construction sites, pool draining, car washing, the washing down of paved areas, and some initial wet-weather runoff) prior to discharging to the ocean. An average of 500,000 gallons per

day (gpd) of urban runoff generated in parts of the cities of Santa Monica and Los Angeles is treated by conventional and advanced treatment systems at the SMURRF. The runoff water is diverted from the City of Santa Monica's two main storm drains (Pier, Pico-Kenter) into the SMURRF and treated to remove pollutants such as trash, sediment, oil, grease, and pathogens (Santa Monica, 2014). In addition, LACFCD owns and operates 20 low-flow diversions in the Santa Monica Bay coast which divert low flows to the sanitary sewer system; these low-flow diversions also capture trash and floating debris in a trash well (LACFCD, 2013).

Solid Waste Management

Trash discarded on land frequently makes its way into streams, creeks, rivers, and eventually the ocean as rain storms wash it into gutters and storm drains. Types of trash generated by human activity that frequently pollute waterways include cigarette butts, paper, fast food containers, plastic grocery bags, cans and bottles, used diapers, construction site debris, industrial preproduction plastic pellets, old tires, appliances, and more. Trash is a significant pollutant of California's waters that adversely affects beneficial uses, including but not limited to uses that support aquatic life, wildlife, and public health (SWRCB, 2014).

The EWMP areas are served by various landfills and recycling centers operated by cities, the County, and private facility operators. Sanitation Districts of Los Angeles County (LACSD) serves the solid waste management needs of a large portion of Los Angeles County with several landfills, recycle centers, materials recovery/transfer facilities, and energy recovery facilities (LACSD, 2014). The two operational landfill sites are the Calabasas Landfill, located near Agoura Hills, and the Scholl Canyon Landfill, located in the Glendale. Other solid waste collection facilities operated by LACSD include the Puente Hills Materials Recovery Facility, the Downey Area Recycling and Transfer Facility, South Gate Transfer Station, the Commerce Refuse-to-Energy Facility, and the Southeast Resource and Recovery Facility. The City of Los Angeles Bureau of Sanitation collects refuse, recyclables, yard trimmings, and other bulky items from more than 750,000 homes and operates the Central LA Recycling and Transfer Station, which temporarily stores refuse and transports it to the nearest landfill. The City of Los Angeles has closed its five landfills and now uses Sunshine Canyon landfill for refuse disposal. Many of the participating cities within the EWMP study areas contract with landfills outside of Los Angeles County for disposal.

Energy

In 2012, the County of Los Angeles used 69,277.09 million kilowatt-hours (kWh) (CEC, 2014). Southern California Edison (SCE) provides electricity for the majority of the County. The Los Angeles Department of Water and Power provides over 23 million megawatt-hours (MWh) for the 1.4 million customers in the City of Los Angeles and Owens Valley (LADWP, 2013). LADWP is the third largest California electric utility in terms of consumption, behind Pacific Gas & Electric and SCE (LADWP, 2013). Both LADWP and SCE continue to increase efforts to use additional renewable energy resources. Local, state, and federal mandates require levels of renewable energy as a percentage of electricity sales. Senate Bill (SB) 2 (1X) set renewable

energy targets of 20 percent for years 2011–2013, 25 percent by 2016, and 33 percent by 2020 and thereafter.

3.14.2 Regulatory Setting

State

California Health and Safety Code

The California Health and Safety Code, Division 104, Part 12, Chapter 5, Article 2, Section 116815, requires all pipes carrying recycled water to be colored purple or wrapped in purple tape. This requirement stems from a concern in cross contamination and potential public health risks similar to those discussed for Title 17 (Public Health) of the California Code of Regulations. It is also discussed in the California Health Laws Related to Recycled Water (the Purple Book).

Protection of Underground Infrastructure

The California Government Code Section 4216-4216.9 "Protection of Underground Infrastructure" requires an excavator to contact a regional notification center (e.g., Underground Services Alert or Dig Alert) at least two days prior to excavation of any subsurface installations. Any utility provider seeking to begin a project that could damage underground infrastructure can call Underground Service Alert, the regional notification center for Southern California, which would in turn notify the utilities of potentially buried lines within 1,000 feet of the project excavation. Representatives of the utilities are then required to mark the specific location of their facilities within the work area prior to the start of excavation activities in the area.

California Integrated Waste Management Act of 1989

The California Integrated Waste Management Act of 1989 (Public Resources Code, Division 30) enacted through AB 939 emphasizes conservation of natural resources through reduction, recycling, and reuse of solid waste. AB 939 requires that all cities and counties divert 25 percent of solid waste streams from landfills by 1995 and 50 percent by 2000. In accordance with AB 939, each local agency must submit an annual report to the California Integrated Waste Management Board summarizing its progress in diverting disposed of solid waste.

2005 California Energy Action Plan II

The California Energy Commission's California Energy Action Plan II is the state's principal energy planning and policy document. The plan identifies state-wide energy goals, describes a coordinated implementation plan for state energy policies, and identifies specific action areas to ensure that California's energy is adequate, affordable, technologically advanced, and environmentally sound. In accordance with this plan, the first priority actions to address California's increasing energy demands are energy efficiency and demand response (i.e., reduction of customer energy usage during peak periods in order to address system reliability and support the best use of energy infrastructure). Additional priorities include the use of renewable sources of power and distributed generation (i.e., the use of relatively small power

plants near or at centers of high demand). To the extent that these actions are unable to satisfy the increasing energy and capacity needs, clean and efficient fossil-fired generation is supported.

The Energy Action Plan II includes the following energy efficiency action specific to water supply systems:

- Identify opportunities and support programs to reduce electricity demand related to the water supply system during peak hours and opportunities to reduce the energy needed to operate water conveyance and treatment systems.

California Urban Water Management Planning Act of 1983

Section 10610 of the California Water Code establishes the Urban Water Management Planning Act. The act states that every publicly and privately owned urban water service provider that serves 3,000 or more customers or that supplies over 3,000 acre-feet of water annually is required to prepare an Urban Water Management Plan (UWMP) every 5 years. The goal of an UWMP is to ensure a reliable level of water service sufficient to meet the needs of customers during normal, dry, and multiple dry years.

NPDES Construction General Permit

Construction associated with the proposed program would disturb more than one acre of land surface for centralized and regional structural Best Management Practices (BMPs) (and possibly for those distributed structural BMPs larger than one acre), affecting the quality of stormwater discharges into waters of the United States. The proposed program would therefore be subject to the National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order 2009-0009-DWQ, NPDES No. CAS000002, Construction General Permit [CGP]), as amended by Order 2010-0014-DWQ and Order 2012-0006-DWQ). The CGP regulates discharges of pollutants in stormwater associated with construction activity to waters of the United States from construction sites that disturb one or more acres of land surface, or that are part of a common plan of development or sale that disturbs more than one acre of land surface.

The CGP requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that includes specific BMPs designed to prevent pollutants from contacting stormwater and keep all products of erosion from moving off-site into receiving waters. The SWPPP BMPs are intended to protect surface water quality by preventing the off-site migration of eroded soil and construction-related pollutants from the construction area. The CGP and SWPPPs are described in more detail in Section 3.8, *Hydrology and Water Quality*.

Statewide Water Quality Control Plans for Trash

The State Water Board proposes to adopt Amendments to Statewide Water Quality Control Plans to Control Trash (Trash Amendments) to the *California Ocean Plan* and the forthcoming *Inland Surface Waters, Enclosed Bays, and Estuaries Plan*. The proposed Trash Amendments will include six elements: (1) water quality objective, (2) prohibition of discharge, (3) implementation provisions, (4) time schedule, (5) time extension option for State Water Board consideration, and

(6) monitoring and reporting requirements. The project objective for the proposed Trash Amendments is to provide statewide consistency for the State Water Board's regulatory approach to protect aquatic life and public health beneficial uses, and reduce environmental issues associated with trash in state waters, while focusing limited resources on high-trash-generating areas (SWRCB, 2014).

Local

Los Angeles County Municipal Separate Storm Sewer System Permit

The current Municipal Separate Storm Sewer System (MS4) Permit for Los Angeles County (Order No. R4-2012-0175) became effective December 28, 2012 and contains requirements that are necessary to improve efforts to reduce the discharge of pollutants in stormwater runoff to the maximum extent practicable and achieve water quality standards.

Illicit Connections and Illicit Discharge Elimination Program

The MS4 Permit requires Permittees to continue to implement an Illicit Connection and Illicit Discharge (IC/ID) Program to detect, investigate, and eliminate IC/IDs to its MS4. Each Permittee must have adequate legal authority to prohibit IC/IDs to the MS4 and enable enforcement capabilities to eliminate the source of IC/IDs. The IC/ID Program includes at least the following major program components:

a) An up-to-date map of the MS4 facilities

b) Procedures for conducting source investigations for IC/IDs

c) Procedures for eliminating the source of IC/IDs

d) Procedures for public reporting of IDs

e) Spill response plan

f) IC/IDs education and training for staff

Enhanced Watershed Management Programs

The MS4 Permit allows Permittees the flexibility to develop EWMPs to implement the requirements of the Permit on a watershed scale through customized strategies, control measures, and BMPs. Participation in an EWMP is voluntary and allows a Permittee to address the highest watershed priorities, including complying with the requirements of Receiving Water Limitations and Total Maximum Daily Load Provisions. Customized strategies, control measures, and BMPs will be implemented on a watershed basis, where applicable, through each Permittee's stormwater management program and/or collectively by all participating Permittees through an EWMP. An EWMP comprehensively evaluates opportunities, within the participating Permittees' collective jurisdictional area in a Watershed Management Area, for collaboration among Permittees and other partners on multi-benefit regional projects that, wherever feasible, retain (i) all non-stormwater runoff and (ii) all stormwater runoff from the 85th percentile, 24-hour storm event for the drainage areas tributary to the projects, while also achieving other benefits including flood control and water supply, among others. An EWMP shall ensure that existing requirements to comply with technology-based effluent limitations and core requirements (e.g., including

elimination of nonstormwater discharges of pollutants through the MS4, and controls to reduce the discharge of pollutants in stormwater to the maximum extent practicable) are not delayed.

County of Los Angeles Low Impact Development Manual

The County of Los Angeles prepared the 2014 Low Impact Development Standards Manual (LID Standards) to comply with the requirements of the NPDES MS4 Permit for stormwater and non-stormwater discharges from the MS4 within the coastal watersheds of Los Angeles County (CAS004001, Order No. R4-2012-0175), referred to as the 2012 MS4 Permit. The LID Standards provide guidance for the implementation of stormwater quality control measures in new development and redevelopment projects in unincorporated areas of the County with the intention of improving water quality and mitigating potential water quality impacts from stormwater and non-stormwater discharges. The November 2013 LID Ordinance became effective December 5, 2013.

City of Los Angeles Low Impact Development Manual

In November 2011, the City of Los Angeles adopted the Stormwater Low Impact Development (LID) Ordinance #181899 with the stated purpose of:

- Requiring the use of LID standards and practices in future developments and redevelopments to encourage the beneficial use of rainwater and urban runoff
- Reducing stormwater/urban runoff while improving water quality
- Promoting rainwater harvesting
- Reducing offsite runoff and providing increased groundwater recharge
- Reducing erosion and hydrologic impacts downstream
- Enhancing the recreational and aesthetic values in our communities

The City of Los Angeles institutionalized the use of LID techniques for development and redevelopment projects. Subsequent to the adoption of the Stormwater LID Ordinance, the City prepared the *Development Best Management Practices Handbook, Low Impact Development Manual,* dated June 2011, which describes the required BMPs (City of Los Angeles, 2011).

Other Cities LID

Various other cities within the County also have LID standards or guidance. The goals, objectives, and content of the LID document are similar to that of the County and City of Los Angeles and are not referenced here.

Los Angeles County Construction and Demolition Debris Recycling and Reuse Program

On January 1, 2011, Los Angeles County adopted the Green Building Standards Code, which sets forth recycling requirements for construction and demolition projects in the unincorporated areas of Los Angeles County. These requirements apply to any project requiring a construction, demolition or grading permit. According to the requirements, nonresidential construction projects

consisting of commercial, industrial, or retail structures, as well as all tenant improvements, irrespective of the square footage, must recycle a minimum of 65 percent of the debris generated by weight (Los Angeles County, 2014).

Los Angeles County General Plan

The County of Los Angeles is currently updating their 1980 General Plan; the new comprehensive General Plan was expected to be adopted by late 2014, but is still pending approval. The following are utilities and service systems goals and policies relating to the proposed program from the existing General Plan's Water and Waste Management Element, and the Draft General Plan 2035 (as of September 2014) Public Services and Facilities Element.

Existing General Plan 1980:

Goal – Reduce Service Deficiencies: Major deficiencies include the lack of water in aquifers and the shortage of solid waste landfill capacity. Technological advancements may reduce reliance on landfills.

Goal – Reduce Detrimental Impacts on Natural and Man Made Environments: Adverse effects on the natural, social and man-made environment arising from water and waste management development must be anticipated and mitigated where they cannot be avoided.

Draft General Plan 2014:

Goal PS/F 1: A coordinated, reliable, and equitable network of public facilities that preserves resources, ensures public health and safety, and keeps pace with planned development.

Goal PS/F 3: Increased local water supplies through the use of new technologies.

Policy PS/F 3.1: Increase the supply of water through the development of new sources, such as recycled water, gray water, and rainwater harvesting.

Policy PS/F 3.2: Support the increased production, distribution and use of recycled water, gray water, and rainwater harvesting to provide for groundwater recharge, seawater intrusion barrier injection, irrigation, industrial processes and other beneficial uses.

Goal PS/F 4: Reliable sewer and urban runoff conveyance treatment systems.

Policy PS/F 4.1: Encourage the planning and continued development of efficient countywide sewer conveyance treatment systems.

Goal PS/F 5: Adequate disposal capacity and minimal waste and pollution.

Policy PS/F 5.1: Maintain an efficient, safe and responsive waste management system that reduces waste while protecting the health and safety of the public.

Goal PS/F 6: A County with adequate public utilities.

Policy PS/F 6.1: Ensure efficient and cost-effective utilities that serve existing and future needs.

City General Plans

The numerous cities encompassed by the EWMP area all have their own respective city General Plans, some of which may contain policies that address public utilities. As implementation of the individual structural BMP projects proceed, specific policies and objectives pertaining to public utilities from applicable city General Plans will be identified and evaluated on a project-by-project basis during subsequent California Environmental Quality Act (CEQA) environmental processes.

3.14.3 Impact Assessment

The proposed program's potential impacts have been assessed using the CEQA Guidelines Appendix G Checklist. The following sections discuss the key issue areas identified in the CEQA Guidelines with respect to the program's potential effect to utilities and service systems.

Thresholds of Significance

For the purposes of this Program Environmental Impact Report (PEIR) and consistency with Appendix G of the CEQA Guidelines, applicable local plans, and agency and professional standards, the proposed program would have a significant effect on utilities and service systems if it would:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board (RWQCB).
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Have sufficient water supplies available to serve the project from existing entitlements and resources, or would require new or expanded water supply resources or entitlements.
- Result in a determination (by the wastewater treatment provider that serves or may serve the project) that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
- Be served by a landfill with insufficient permitted capacity to accommodate the project solid waste disposal needs.
- Not comply with federal, state, and local statutes and regulations related to solid waste.

- Cause a substantial increase in overall or per capita energy consumption or cause wasteful or unnecessary consumption of energy.
- Require construction of new sources of energy supplies or additional energy infrastructure capacity, the construction of which could cause significant environmental effects.
- Conflict with applicable energy efficiency policies or standards.

Program Impact Discussion

Wastewater Treatment

Impact 3.14-1: Implementation of the proposed program could exceed wastewater treatment requirements of the applicable RWQCB or result in the construction of new treatment facilities or expansion of existing facilities if the wastewater treatment provider has inadequate capacity to serve the proposed program.

Structural (Regional, Centralized, and Distributed) BMPs

The proposed program would involve the construction of structural BMPs intended to treat stormwater and non-stormwater runoff. The structural BMPs that fall under this category include green infrastructure/LID, of which there are many subtypes, including bioretention and biofiltration, permeable pavement, and bioswales, flow-through treatment BMPs, source-control BMPs, infiltration BMPs, capture-and-use BMPs, bioinfiltration BMPs, treatment facilities and low-flow diversions, constructed wetlands, and other multi-benefit flood management projects.

The implementation of the proposed program would comply with the MS4 Permit issued by the RWQCB. Existing discharge permits for individual facilities such as publically owned treatment works, or for general actions such as construction and industrial activities, would not be affected by the implementation of proposed structural BMPs. Each Permittee would be required to comply with existing discharge permit limitations, as is the case under existing conditions. Implementation of facilities meant to improve water quality and meet water quality objectives of the MS4 Permit would be consistent with RWQCB discharge requirements. (See Section 3.8.4, *Hydrology and Water Quality*, for a discussion on construction-related water quality impacts.)

The construction of structural BMPs would vary significantly based on the location, size, and configuration of the BMP. Construction methods may include removal or retrofitting of above-ground infrastructure or local soils in relatively compact areas, requiring the hauling of demolished material. Excavation may be necessary for subsurface structure installations such as dry/wet wells, underdrain, flow-through treatment BMPs, infiltration BMPs, capture-and-use BMPs, and treatment facilities. However, many of these structural BMPs would have a relatively small footprint of a few acres or much less. Some of the centralized BMPs would require larger areas of excavation for installation of infiltration and detention basins and other subsurface facilities and may be a few acres to several tens of acres.

Most structural BMPs would be constructed in developed areas, including parking lots, roads, or sidewalks, and would not require new treatment facilities or expansion of existing facilities. Treatment provided by most of the structural BMPs would be from soil infiltration. However,

some BMPs, in particular low-flow diversion systems, would be designed to convey dry-weather flows to a newly constructed treatment system, or to an existing wastewater treatment facility. Some of these facilities would be small and constructed in close proximity to the water course. The implementing agency would be required to evaluate the location of these facilities to ensure compatible land uses, but otherwise these new treatment facilities would be constructed as part of the water quality improvement project.

Other low-flow diversion systems would divert dry-weather flows to existing wastewater treatment plants. As part of the design for these types of projects, the implementing agency would be required to evaluate the available dry-weather capacity of the existing treatment facility and to evaluate whether the additional flow could be accommodated within the existing system and under the existing discharge requirements. The wastewater treatment provider would be a lead agency in evaluating impacts to their facility. If additional capacity is required, or additional treatment processes are required to meet discharge limitations, the implementing agency would evaluate these elements as part of the proposed low-flow diversion project. Implementation of these low-flow diversion projects would require the cooperation and approval of the wastewater treatment provider under the discharge permit limitations.

The operational purpose of the structural BMPs associated with the proposed EWMPs is to meet the surface water treatment requirements of the Los Angeles RWQCB for stormwater and non-stormwater discharges. The main functions of the structural BMPs would be to infiltrate, treat, and store runoff to help reduce the impact of stormwater and non-stormwater discharges on receiving water quality, which would not produce wastewater during operation. Therefore, the structural BMPs would be designed to meet wastewater treatment requirements of the RWQCB permit. Impacts would be less than significant.

Construction requiring ground disturbance could encounter buried utilities including wastewater conveyance infrastructure. As part of the project design, Implementing Agencies would be required to identify the potential for underground utilities and determine whether they would need to be relocated to accommodate the BMP. As standard construction practices require, Implementing Agencies would conduct an underground utility search prior to excavation and would coordinate with utility providers in advance to ensure no disruption in services to the utility customers. Impacts to wastewater infrastructure would be less than significant.

Mitigation Measures: None required

Significance Determination: Less than significant

Non-Structural (Institutional) BMPs

The non-structural BMPs associated with the proposed program would include programs and policies that would entail development guidelines and activities designed to prevent surface water quality degradation. Examples include construction stormwater management programs, municipal pollutant reduction programs, IC/ID detection programs, smart growth planning and LID practices, and public education programs. These BMPs would not increase local populations and would not contribute to an increased generation of wastewater exceeding wastewater treatment

requirements of the RWQCB. Consequently, the structural BMPs would not require construction or the expansion of any water or wastewater treatment facilities. There would be no impact.

Mitigation Measures: None required

Significance Determination: No impact

Stormwater Facilities

Impact 3.14-2: The proposed program could require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Structural (Regional, Centralized, and Distributed) BMPs

The proposed program consists of improvements to existing storm drainage facilities as well as new storm drain facilities within the EWMP program areas. New facilities proposed would likely be installed within existing sidewalks, streets, parks, municipally owned lands, or drainage easements. Storm drainage capacity would be verified during design as applicable, and temporary retention facilities may be used until such time as adequate downstream storm drainage facilities are constructed and operational. This PEIR contains an analysis on the potential environmental effects that might result from the installation of storm drainage facilities identified in the proposed EWMPs. No additional analysis is required under this impact discussion.

Mitigation Measures: None required

Significance Determination: Less than significant

Non-Structural (Institutional) BMPs

The non-structural BMPs associated with the proposed EWMPs would involve policies, actions, and activities and would not require construction of new stormwater drainage facilities or expansion of existing facilities. There would be no impact.

Mitigation Measures: None required

Significance Determination: No impact

Water Supply

Impact 3.14-3: The proposed program could require new or expanded water supply resources or entitlements or require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Structural (Regional, Centralized, and Distributed) BMPs

Implementation of the EWMPs would not increase water demands. Construction of the majority of the structural BMPs would require some minor water usage for dust control and concrete washout activities. However, the construction periods for BMPs are expected to be relatively

short, lasting several months to a year. Therefore, water demand during construction is not expected to be substantial enough to require new or expanded water supply resources. Some of the BMPs would augment local water supplies through enhanced stormwater recharge. Impacts to the existing water supplies are anticipated to be beneficial as a result of the stormwater and non-stormwater runoff infiltration and conservation BMPs implemented across the EWMP areas. No adverse impacts related to new or expanded water supply resources or entitlements would occur.

Construction requiring ground disturbance could encounter buried utilities including water supply infrastructure. As part of the project design, Implementing Agencies would be required to identify the potential for underground utilities and determine whether they would need to be relocated to accommodate the BMP. As standard construction practices require, Implementing Agencies would conduct an underground utility search prior to excavation and would coordinate with utility providers in advance to ensure no disruption in services to the utility customers. Impacts to water supply infrastructure would be less than significant.

Local surface water contributes little to the regional water supply; local agriculture relies mostly on groundwater and imported water. Throughout Los Angeles County, stormwater flows are captured for recharge by LACFCD where suitable detention and infiltration facilities are available. These captured flows augment groundwater supplies, but are not directly diverted for beneficial uses such as drinking water. Dry-weather flows are also captured in some areas for groundwater recharge. Construction of BMPs to detain stormwater and dry-weather flows may reduce flows downstream, thereby reducing access to beneficial uses downstream. Under California law, the State Water Resources Control Board (SWRCB), Division of Water Rights, is responsible for issuing appropriation permits pursuant to Division 2, Part 2 of the California Water Code. The SWRCB maintains a list of water diversion rights issued since the 1920s in Los Angeles County (http://www.waterboards.ca.gov/waterrights/board_decisions/adopted_orders/decisions/county.shtml). If installation of BMPs (detention, infiltration, and low-flow diversions) would reduce water available to downstream diverters such that their water rights would be impinged, this would be a significant impact of the Program. However, much of the existing diversion permits for Los Angeles County involve streams that are fed by groundwater seepage. These flows, to the extent they still remain, would not be adversely affected by the installation of BMPs since they are fed by natural sources.

The urbanization of the County has resulted in channelization of many drainages that are owned and managed by LACFCD. In areas with natural unimproved streams, such as in the Santa Clara River watershed and Malibu watershed where surface water diversions may be more common, stormwater flows are conveyed downstream quickly. Any detention of storm flows upstream would not substantially reduce storm flows downstream or significantly impede access to storm flow. Dry-weather flows in coastal streams and foothills are largely fed by groundwater seepage or wastewater discharges. These flows would not be affected by infiltration BMPs. However, implementation of **Mitigation Measure UTIL-1** would ensure that downstream water rights would not be affected by upstream diversions.

Mitigation Measure:

UTIL-1: Prior to approval of BMPs, implementing agencies shall evaluate the potential for impacts to downstream beneficial uses, including surface water rights. Implementing agencies shall not approve BMPs that result in preventing access to previously appropriated surface water downstream.

Significance Determination: Less than significant (The application of this mitigation measure to specific BMP types and categories are identified in Table 3.14-3.)

Non-Structural (Institutional) BMPs

The non-structural BMPs associated with the proposed program would include programs and policies that would entail development guidelines and activities designed to prevent surface water quality degradation; they would not increase water demand. Some non-structural BMPs would result in water conservation of existing water sources. For example, the Malibu Creek EWMP would implement the Citywide Smart Irrigation Control System, which calls for the installation of a smart irrigation control system using evapotranspiration technology. This system would be put into place at all City of Calabasas-owned facilities, street medians, and parkways. Replacement of irrigation controllers is projected to reduce irrigation runoff that is associated with overwatering of landscaped areas. The City uses 66,431 gallons of water on annual basis for landscape irrigation. It is anticipated that with the new system, the City would save between 13,300 to 16,600 gallons of water, which also translates to approximately 5,000 to 7,000 gallons of reduction in runoff. Therefore, they would not require new or expanded water supply resources or entitlements.

Mitigation Measures: None required

Significance Determination: No impact

Solid Waste

Impact 3.14-4: The proposed program could be served by a landfill with insufficient permitted capacity to accommodate the project solid waste disposal needs or the project could not comply with federal, state, and local statutes and regulations related to solid waste.

Structural (Regional, Centralized, and Distributed) BMPs

Construction activities associated with the structural BMPs would include excavation and demolition of some existing infrastructure, which would produce solid waste requiring disposal in the nearest landfill. The largest potential source of solid waste during construction would be excavated soil. While it is expected that most clean soil would be recycled, reused offsite, or stockpiled and reused as backfill, this analysis assumes that a portion of soil would be disposed in landfills. The exact quantity of waste materials to be disposed of in nearby landfills (which includes construction debris, demolition materials, and excavation spoils) would not be known until each project undergoes a detailed evaluation as part of separate, project-level CEQA review. Recycling and reuse of construction and demolition material has been shown to considerably reduce the amount of debris sent to landfills. The County of Los Angeles and many participating cities have construction and demolition debris recycling and reuse programs. According the

County of Los Angeles, except under unusual circumstances, it is feasible to recycle or reuse at least 50 percent or construction and demolition debris (RWQCB, 2008). Development of a waste management or recycling plan (**Mitigation Measure UTIL-2**) would reduce this impact.

Some of the EWMPs, including the Dominguez Channel EWMP and the Upper Santa Clara River EWMP, are required to implement trash Total Maximum Daily Limits (TMDLs) and associated trash removal structural BMPs. Two types of source-control BMPs for trash are illustrated in Section 2.0, *Project Description*: catch basin inserts, which use nets, screens, fabric, or similar filtration media to separate sediment and gross solids from stormwater, and hydrodynamic separators, which use screens, baffles, or vertical flow to separate sediment and gross solids from stormwater.

The Upper Santa Clara River EWMP plans to implement trash removal BMPs for 79 storm drains in a commercial/industrial park (County of Los Angeles) and 110 storm drain inlets in a commercial/industrial park (City of Santa Clarita). The Dominguez Channel EWMP plan primarily proposes the installation of catch opening screen covers and inserts in those structures found in the Santa Monica Bay, Machado Lake, and Dominguez Channel watersheds of the City of Los Angeles. The catch basin opening screen covers are coarse screens that are installed in the catch basin openings and prevent trash from entering the City storm drain system. Each catch basin opening screen cover has a self-opening device activated by a predetermined street gutter flow to disengage its locking mechanism. The catch basin inserts are perforated screens that are installed inside the catch basin in front of the outlet pipe of the catch basin.

The EPA-approved Trash TMDLs for the EWMP areas require annual determination of trash discharges. The TMDLs also require compliance monitoring calculations of the Trash Daily Generation Rate. These monitoring efforts allow permitting agencies to track and monitor the amounts being sent to landfills. The volume of trash removed from the regional waterways is small when compared to daily trash collection and disposal quantities in the highly urbanized Los Angeles County. The new trash collection would be accommodated with existing and planned trash disposal facilities. Based on landfill capacity in the Los Angeles region, there appears to be ample availability to receive trash that would be collected as part of compliance with the Malibu Creek and Machado Lake Trash TMDLs (RWQCB, 2007; 2008). Impacts related to insufficient permitted landfill capacity from implementation of the proposed program is anticipated be less than significant.

The program would comply with all federal, state, and local statutes and regulations related to solid waste, including the Los Angeles County Construction and Demolition Debris Recycling and Reuse Program. Impacts regarding noncompliance solid waste regulations would be less than significant.

Mitigation Measure:

UTIL-2: Implementing agencies shall encourage construction contractors to recycle construction materials and divert inert solids (asphalt, brick, concrete, dirt, fines, rock, sand, soil, and stone) from disposal in a landfill, where feasible. Implementing agencies

shall incentivize construction contractors with waste minimization goals in bid specifications where feasible.

Significance Determination: Less than significant (The application of these mitigation measures to specific BMP types and categories are identified in Table 3.14-3.)

Non-Structural (Institutional) BMPs

The non-structural BMPs associated with the proposed EWMPs would not involve the construction of new facilities that would generate a new solid waste disposal need. However, the non-structural BMPs would include a broad range of municipal practices such as street cleaning, landscape management, storm drain operation, and more, which produce debris and trash for disposal. Regular street sweeping is one of the most cost-effective non-structural BMPs used to remove sediment, metals, petroleum products, trash, and vegetation that accumulate on streets. Maintaining a regular street sweeping schedule reduces the buildup of trash on streets and prevents trash from entering catch basins and the storm drain system. Street sweeping can also improve the appearance of roadways and urban areas. Based on the existing and planned trash disposal and recycling facilities available to the Los Angeles region, the additional solid waste would not exceed disposal capacity or require additional disposal facilities. As a result, impacts related to insufficient permitted landfill capacity would be less than significant.

Mitigation Measures: None required

Significance Determination: Less than significant

Energy

Impact 3.14-5: Construction and operation of the proposed program would require additional energy use that could result in wasteful consumption, affect local and regional energy supplies, or conflict with applicable energy efficiency policies or standards.

Structural (Regional, Centralized, and Distributed) BMPs

Construction of BMPs would require use of non-renewable energy in the form of gasoline and diesel to power construction equipment. However, use of this fuel for construction would not be at such a large scale that it could be seen as wasteful or as affecting local or regional energy supplies. Impacts to energy supplies for construction would be less than significant.

Construction requiring ground disturbance could encounter buried or overhead utilities including electric or gas conveyance infrastructure. As part of the project design, Implementing Agencies would be required to identify the potential for underground utilities and determine whether they would need to be relocated to accommodate the BMP. As standard construction practices require, Implementing Agencies would conduct an underground utility search prior to excavation and would coordinate with utility providers in advance to ensure no disruption in services to the utility customers. Impacts to electric or gas infrastructure would be less than significant.

Some of the centralized and regional structural BMPs may require the installation of pump stations and ancillary components that would be electrically powered. Operation of the proposed pump station facilities would require new connections to the local electrical transmission system. Plans for the pump station facilities have not been finalized, and thus the energy requirements for operation of the proposed pump stations have not been determined. Operation of the pump stations may be variable in response to seasonal fluctuations.

Energy for the pump stations would be provided by LADWP and SCE. Electricity is generated and made available to Southern California from generating facilities and transmission lines located throughout the western United States. LADWP and SCE would be responsible for delivering the energy needed for the proposed structural BMPs. The proposed program would include implementation of energy efficient equipment, such as pumps and lighting, which would minimize the energy requirements of the proposed pump stations. The use of energy anticipated for the proposed program is minor when compared to the County-wide use of electricity. In addition, the proposed program would be supporting water conservation efforts and water quality requirements of the MS4 Permit, which would not result in wasteful consumption, affect local and regional energy supplies, or conflict with applicable energy efficiency policies or standards. Impacts to energy supplies for operation would be less than significant.

Mitigation Measures: None required

Significance Determination: Less than significant

Cumulative Impact Discussion

Structural (Regional, Centralized, and Distributed) BMPs

Structural BMPS constructed to treat, infiltrate, and/or store stormwater and non-stormwater throughout the watershed would not generate wastewater or require wastewater treatment. However, low-flow diversion BMPs would install localized treatment facilities or use existing wastewater treatment systems to treat and discharge dry-weather flows. Use of these treatment systems throughout the region would result in cumulatively improved water quality and local impacts during construction, but would not result in adverse cumulative impacts from operation or construction. Cumulative impacts would be less than significant.

The proposed program consists of improvements to existing storm drainage facilities as well as new storm drain facilities within the EWMP program areas. This PEIR contains an analysis on the potential environmental effects that might result from the installation of storm drainage facilities identified in the proposed EWMPs. Cumulative impacts to storm drain facilities would be less than significant.

Impacts to the existing water supplies are anticipated to be beneficial as a result of the stormwater and non-stormwater runoff infiltration and conservation BMPs implemented across the EWMP areas. **Mitigation Measure UTIL-1** would require that implementing agencies evaluate impacts to downstream beneficial uses, including surface water rights prior to BMP approval. No adverse

cumulative impacts related to new or expanded water supply resources or entitlements would occur.

Construction and operation of the structural BMPs would generate solid waste; however, landfills serving the program area are expected to have sufficient capacity to accommodate the amount of waste generated. Development of a waste management or recycling plan (**Mitigation Measure UTIL-2**) would reduce this impact. Disposal of the solid waste generated during construction and operation would comply with all pertinent regulations and statutes. All other projects implemented in the area would also be required to comply with federal, state, and local solid waste regulations and statutes. Cumulative impacts would be less than significant.

The use of energy anticipated for the proposed program is minor when compared to the County-wide use of electricity. The proposed program would use energy-efficient equipment and would not result in wasteful consumption. Cumulative impacts would be less than significant.

Mitigation Measures: Implement **Mitigation Measure UTIL-1** and **Mitigation Measure UTIL-2**

Significance Determination: Less than significant (The application of these mitigation measures to specific BMP types and categories are identified in Table 3.14-3.)

Non-Structural (Institutional) BMPs

The non-structural BMPs associated with the proposed program would generally have no impact on utilities and service systems. The non-structural BMPs would not require construction and would not require water or wastewater treatment or expanded water supply sources. However, the non-structural BMPs would include street cleaning, landscape management, and storm drain operation, which produce debris and trash for disposal. Based on landfill capacity for the Los Angeles region, there appears to be ample availability to receive trash that would be collected with street cleaning throughout the EWMPs in addition to all other projects implemented in the program area. As a result, cumulative impacts related to insufficient permitted landfill capacity would be less than significant.

Mitigation Measures: None required

Significance Determination: Less than significant

3.14.4 Summary of Impact Assessment

Table 3.14-3 shows a summary of the structural BMPs requiring mitigation.

TABLE 3.14-3
SUMMARY OF UTILITIES AND SERVICE SYSTEM IMPACTS REQUIRING MITIGATION MEASURES

	Thresholds of Significance					
Structural BMPs	**Wastewater Facilities and Discharge Requirements**	**Stormwater Facilities**	**Water Supply**	**Solid Waste**	**Energy**	**Cumulative Impacts**
Applicable Mitigation Measures:	**None Required**	**None Required**	**UTIL-1**	**UTIL-2**	**None Required**	**UTIL-1; UTIL-2**
Regional BMPs						
Regional Detention and Infiltration	No	No	Yes	Yes	No	Yes
Regional Capture, Detention and Use	No	No	Yes	Yes	No	Yes
Centralized BMP						
Bioinfiltration	No	No	Yes	Yes	No	Yes
Constructed Wetlands	No	No	Yes	No	No	Yes
Treatment/Low-Flow Diversions	No	No	Yes	No	No	Yes
Creek, River, Estuary Restoration	No	No	Yes	No	No	No
Distributed BMPs						
Site-Scale Detention	No	No	Yes	No	No	No
LID – Infiltration/Filtration BMPs – Porous Pavement, Green Streets, Bioswale/Filter Strips, downspout disconnects	No	No	Yes	No	No	No
LID – Green Infrastructure – Capture and Use – Cisterns, Rain Barrels, Green Roofs, Planter Boxes	No	No	Yes	No	No	No
Flow-through Treatment BMPs	No	No	No	No	No	No
Source Control Treatment BMPs (catch basin inserts/screens, hydrodynamic separators, Gross Solids-Removal Devices)	No	No	No	Yes	No	Yes
Low flow diversions	No	No	No	Yes	No	Yes

NOTE: These conclusions are based on typical need for excavation, generation of construction debris, and trash collection

CHAPTER 4
Cumulative Impacts

4.1 Introduction

This chapter presents CEQA requirements for cumulative impact analysis and analyzes the potential for the proposed program to have significant cumulative effects when combined with other past, present, and reasonably foreseeable future projects in each resource area's cumulative geographic scope. This section provides the requirements for cumulative impact analysis. Cumulative impacts for the proposed program when combined with other reasonable and foreseeable future projects in the area are organized by resource topic and analyzed below.

CEQA Guidelines Section 15130(a) requires that an EIR discuss the cumulative impacts of a project when the project's incremental effect is "cumulatively considerable," meaning that the project's incremental effects are considerable when viewed in connection with the effects of past, current, and probable future projects. A consideration of actions included as part of a cumulative impact scenario can vary by geographic extent, time frame, and scale. They are defined according to environmental resource issues and the specific significance level associated with potential impacts. *CEQA Guidelines* 15130(b) requires that discussions of cumulative impacts reflect the severity of the impacts and their likelihood of occurrence. The *CEQA Guidelines* note that the cumulative impacts discussion does not need to provide as much detail as is provided in the analysis of project-only impacts and should be guided by the standards of practicality and reasonableness and focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impacts.

CEQA Analysis Requirements

CEQA requires that an EIR assess the cumulative impacts of a project with respect to past, current, and probable future projects within the region. *CEQA Guidelines* (Section 15355) define cumulative effects as "two or more individual effects that, when considered together, are considerable or which compound or increase other environmental impacts. The cumulative impact from several projects result from the incremental impacts of the proposed program when added to other closely related, and reasonably foreseeable, future projects." Pertinent guidance for cumulative impact analysis is given in Section 15130 of the *CEQA Guidelines*:

- An EIR shall discuss cumulative impacts of a project when the project's incremental effect is "cumulatively considerable", (i.e., the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the

effects of current projects, and the effects of probable future projects, (including those outside the control of the lead agency, if necessary).

- An EIR should not discuss impacts that do not result in part from the project evaluated in the EIR.
- A project's contribution is less than cumulatively considerable, and thus not significant, if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact.
- The discussion of impact severity and likelihood of occurrence need not be as detailed as for effects attributable to the project alone.

In addition, the *CEQA Guidelines* Section 15130(b) allows for the use of two alternatives methods to determine the scope of projects for the cumulative impact analysis:

- List Method - A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency.
- Regional Growth Projections Method - A summary of projects contained in an adopted general plan or related planning document or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact (Section 15130).

The analysis of cumulative effects in this PEIR utilizes a combination of the list and regional growth projections methods and focuses on the effects of concurrent construction and operation of the proposed EWMP projects along with the regional growth anticipated in each of the following Participating Permittee's jurisdictional areas: LACFCD, County of Los Angeles, and the following 46 cities: Los Angeles, Beverly Hills, Culver City, Inglewood, Santa Monica, West Hollywood, Hawthorne, El Segundo, Lomita, Baldwin Park, Covina, Glendora, Industry, La Puente, Malibu, Calabasas, Agoura Hills, Westlake Village, Hidden Hills, Santa Clarita, Rancho Palos Verdes, Palos Verdes Estates, Rolling Hills Estates, Redondo Beach, Hermosa Beach, Torrance, Manhattan Beach, Arcadia, Azusa, Bradbury, Duarte, Monrovia, Sierra Madre, Alhambra, Burbank, Glendale, Hidden Hills, La Cañada Flintridge, Montebello, Monterey Park, Pasadena, Rosemead, San Gabriel, San Marino, South Pasadena, and Temple City (refer to Figure 2-1).

Each of these jurisdictions have independent planning documents that guide the development of urban, agricultural and other land uses within their jurisdictional boundaries.

4.2 Related Projects

Geographic Scope

Cumulative impacts are assessed for related projects within a similar geographic area. This geographic area may vary, depending upon the issue area discussed and the geographic extent of the potential impact. For example the geographic area associated with construction noise impacts

is limited to areas directly adjacent to construction sites, whereas the geographic area that is affected by construction-related air emissions may include the larger air basin. Construction impacts associated with increased noise, dust, erosion, and access limitations tend to be localized but could be exacerbated if other development or improvement projects are occurring within the same or adjacent locations as the proposed program.

Geographically, the proposed program is located in the Los Angeles basin. For the purposes of this analysis, the PEIR considered planned EWMP projects within the service area of LACFCD and all participating permittees, along with the adopted general plans or related planning documents for the EWMP areas, when evaluating potential cumulative impacts due to construction and operation of the proposed program. The planned EWMP projects are listed in **Table 4-1**, shown on **Figure 4-1**, Planned EWMP Projects and detailed further in Section 2.0, *Project Description*.

Project Timing

In addition to the geographic scope, cumulative impacts also take into consideration the timing of related projects relative to the proposed program. The implementation schedule is particularly important for construction-related impacts; for a group of projects to generate cumulative construction impacts, they must be temporally as well as spatially proximate. The EWMP projects that will be included in the proposed EWMPs along with other reasonably foreseeable future projects in the EWMP areas may or may not occur simultaneously. However, this analysis assumes some the EWMP projects and other local projects would be implemented concurrently, between 2015 and 2035.

Type of Projects Considered

As described throughout Chapter 3 of this PEIR, the impacts associated with implementation of the proposed program include both short-term, temporary construction-related impacts and long-term impacts related to program operation.

Cumulative Construction Impacts

Cumulative effects could result when considering the effects of the proposed program in combination with the effects of other construction projects in the area. For this PEIR, the analysis of cumulative construction impacts assumes that throughout the EWMP areas, planned future development projects will be on-going simultaneously with the proposed program, including other local major residential construction, small-scale construction project, and projects that have not yet been identified.

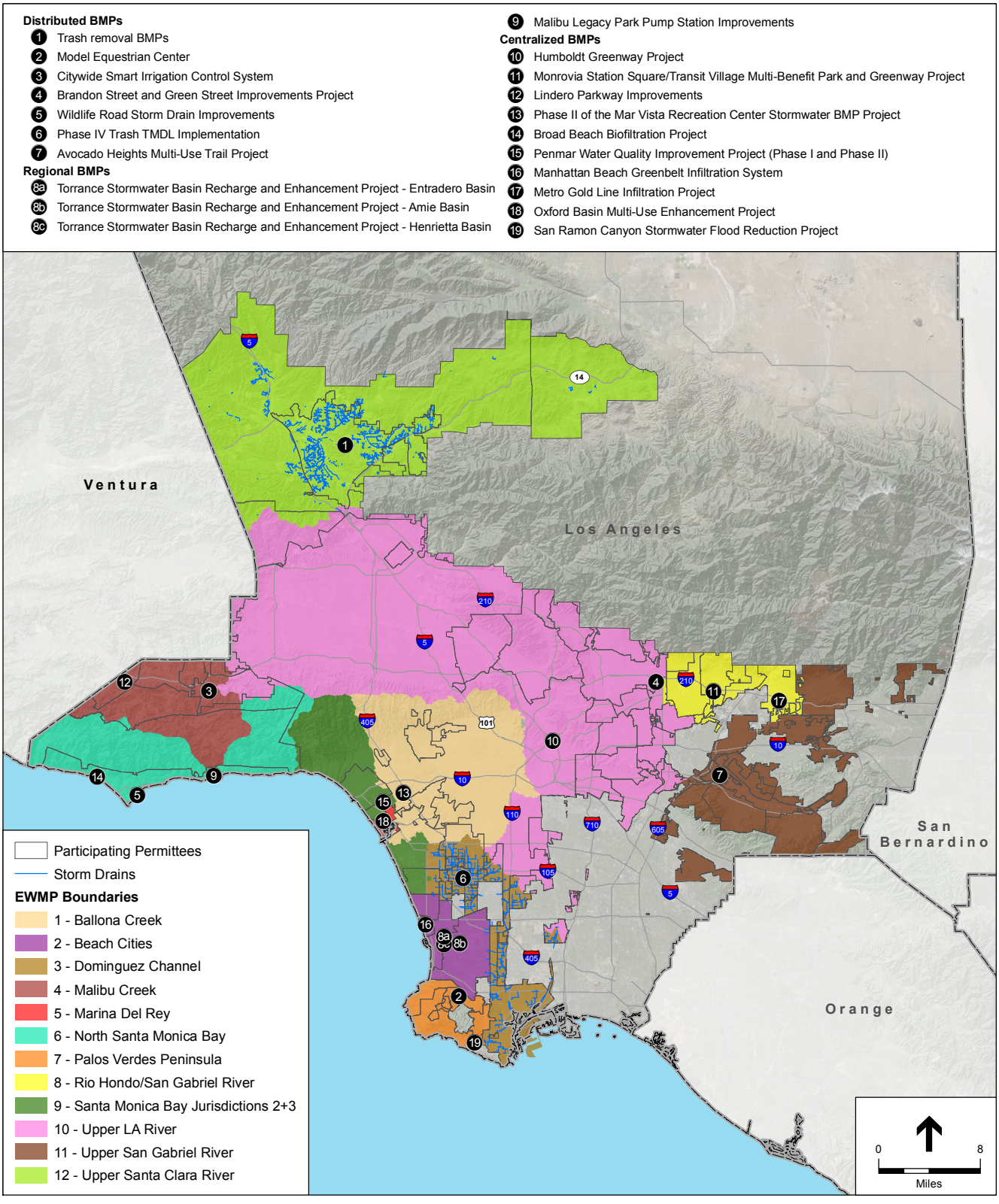
Cumulative Operational Impacts

Cumulative effects could result when considering the effects of the proposed program in combination with the effects of operating other projects in the EWMP areas.

TABLE 4-1
EWMP PROJECTS

Map Number	Project Name	BMP Type	Project Sponsor	Project Implementation
6	Phase IV Trash TMDL Implementation	Distributed	Dominguez Channel	Installation of CB covers began the Summer of 2013.
3	Citywide Smart Irrigation Control System	Distributed	Malibu Creek	Unknown
5	Wildlife Road Storm Drain Improvements	Distributed	North Santa Monica Bay Coastal Watersheds	Construction was scheduled to begin March 2014 and continue through August 2014
2	Model Equestrian Center	Distributed	Palos Verdes Peninsula	Completion anticipated June 2015
4	Brandon Street and Green Street Improvements Project	Distributed	Upper LA River	Construction Spring 2014 to Fall 2014
7	Avocado Heights Multiuse Trail Project	Distributed	Upper San Gabriel River	Constructed
1	Trash removal BMPs	Distributed	Upper Santa Clara River	Planned Implementation Date July 2015
13	Phase II of the Mar Vista Recreation Center Stormwater BMP Project	Centralized	Ballona Creek	Phase II is expected to be completed by December 2014.
16	Manhattan Beach Greenbelt Infiltration System	Centralized	Beach Cities WMG	The project construction was completed February 19, 2013.
18	Oxford Basin Multi-Use Enhancement Project	Centralized	Marina Del Rey	LACFCD anticipates the project to commence construction by the end of this year or early 2015.
12	Lindero Parkway Improvements	Centralized	Malibu Creek	Construction of the proposed improvements is expected to commence either Spring 2015 or early Summer 2015.
14	Broad Beach Biofiltration Project	Centralized	North Santa Monica Bay Coastal Watersheds	June 2014 (Completion of Construction)
19	San Ramon Canyon Stormwater Flood Reduction Project	Centralized	Palos Verdes Peninsula	Anticipated to be completed June 2015.
11	Monrovia Station Square/Transit Village Multi-Benefit Park and Greenway Project	Centralized	Rio Honda - San Gabriel River	Planned Implementation Date Spring 2015.
17	Metro Gold Line Infiltration Project	Centralized	Rio Honda - San Gabriel River	Planned Implementation Date Spring 2016.
15	Penmar Water Quality Improvement Project (Phase I and Phase II)	Centralized	Santa Monica Bay Jurisdictions 2+3	Phase II – expected completion by Spring 2015.
10	Humboldt Greenway Project	Centralized	Upper LA River	Under Construction
8A-8C	Torrance Stormwater Basin Recharge and Enhancement Project	Regional	Beach Cities WMG	Construction was scheduled for Spring 2014.
9	Malibu Legacy Park Pump Station Improvements	Regional	North Santa Monica Bay Coastal Watersheds	Anticipated to be completed June 2015.

SOURCES: EWMP Work Plans, 2014.



SOURCE: ESRI.

LA County PEIR EWMP . 140474

Figure 4-1

Planned EWMP Projects

4.3 Plan Consistency

General Plans

Construction of structural BMPs and adoption of non-structural BMPs would occur throughout each of the EWMP areas, encompassing 84 cities and large areas of unincorporated Los Angeles County. Each city has adopted land use plans and zoning codes covering development within their jurisdictions. Many cities including the City of Los Angeles have adopted LID ordinances that promote new development of storm flow retention and water quality BMPs. Each implementing agency would be required to evaluate the consistency of each BMP with local zoning codes. Compliance with city codes for placement of BMPs would ensure that the cumulative impact of installing multiple BMPs throughout the County would not conflict with local plans and policies.

The Los Angeles County General Plan includes land use designations covering development throughout the County. Section 3.9 Land Use and Agriculture provides a list of goals and policies in the Los Angeles County General Plan that promote storm water quality infrastructure. The installation of multiple BMPs throughout the County would be consistent with the County General Plan goals promoting LID infrastructure and improved storm water quality. Section 3.3 Biological Resources identifies the regional conservation planning efforts throughout the County including critical habitat, significant ecological areas, habitat conservation planning areas, and regional, state and federal parks. The goals of enhanced water quality and a more natural hydrology encouraged by the proposed program are consistent with the habitat conservation goals of each of these plans. Furthermore, the Permit describes the Watershed Management Program optional compliance approach as providing more opportunities for multi-benefit projects that would encourage goals of recreation and habitat value creation as part of the BMP. The proposed program would be consistent with regional General Plan goals and policies.

Resource Management Plans

In addition to the municipalities and County, resource management agencies mitigate cumulative effects of development on the environment. Several regional agencies including SCAQMD, Water Replenishment District, LARWQCB, Department of Toxic Substances Control, wildlife agencies, Coastal Conservancy, Coastal Commission, National Parks, National Forest Service, Santa Monica Mountains Conservancy, and Metropolitan Water District of Southern California manage resources cumulatively impacted by regional development. Each of these resource managers prepare resource management plans to mitigate potentially significant cumulative impacts. Consistency with these management plans minimizes impacts to cumulative impacts. **Table 4-2** lists major resource management agencies and identifies where consistency with resource management plans is discussed in the PEIR. The proposed program would be consistent with regional resource management plans.

TABLE 4-2
KEY REGIONAL RESOURCE MANAGEMENT AND/OR PROTECTION AGENCIES

Agency	Management Plan	Where Discussed in PEIR
SCAQMD	Air Quality Management Plan	Section 3.2
Water Replenishment District	Groundwater Basins Master Plan	Section 3.8
RWQCB	Basin Plan	Section 3.8
Department of Toxics Substances Control	CUPA	Section 3.7
Wildlife agencies (CDFW, USFWS, NMFS)	Critical Habitat Designations, NCCP/HCPs	Section 3.3
Coastal Conservancy and Coastal Commission	Ocean Plan	Section 3.8
National Parks and Forest Service	Forest and Parks Plans	Section 3.9
Santa Monica Mountains Conservancy	Santa Monica Mountains Comprehensive Plan	Section 3.3

SOURCE: Environmental Science Associates.

4.4 Cumulative Impacts and Mitigation Measures

For some impact issue areas (i.e., air quality, traffic, and water supply), the cumulative setting is defined by specific regional boundaries (air basin, regional roadway network, etc.) or projected regional or area-wide conditions, contributing to cumulative impacts. For the remaining impact issue areas, the cumulative setting is based on development anticipated within the vicinity of the EWMP project. The impact analysis in Chapter 3 includes a discussion of cumulative impacts for each resource area. **Table 4-3** summarizes the conclusions of the cumulative analysis in Chapter 3. As shown in the table, implementation of the BMPs would result in cumulative significant impacts to air quality, cultural resources, and noise.

TABLE 4-3
SUMMARY OF CUMULATIVE IMPACT ANALYSIS

Issue Area	Significance Determination
Aesthetics (Cumulative)	LSM
Air Quality (Cumulative)	**SU**
Biological Resources (Cumulative)	LSM
Cultural Resources (Cumulative)	**SU**
Geology and Soils/Mineral Resources (Cumulative)	LSM
Greenhouse Gas Emissions (Cumulative)	LTS
Hazards and Hazardous Materials (Cumulative)	LSM
Hydrology and Water Quality (Cumulative)	LSM
Land Use and Planning/Agriculture (Cumulative)	LTS
Noise (Cumulative)	**SU**
Population and Housing (Cumulative)	LTS
Public Services/Recreation (Cumulative)	LTS
Traffic and Transportation(Cumulative)	LSM
Utilities and Service Systems (Cumulative)	LSM

LTS = Less than Significant
LSM = Less than Significant with Mitigation
SU = Significant and Unavoidable

SOURCE: ESA 2014.

CHAPTER 5
Growth-Inducement Potential

This chapter analyzes the growth-inducement potential and associated secondary effects of growth impacts of the proposed program, as required by the California Environmental Quality Act (CEQA).

5.1 CEQA Requirements

The CEQA Guidelines require that an Environmental Impact Report (EIR) evaluate the growth-inducing impacts of a proposed action (Section 15126.2[d]). A growth-inducing impact is defined by the CEQA Guidelines as:

> [Discuss the way in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a wastewater treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

A project can have direct and/or indirect growth-inducement potential. Direct growth inducement would result if a project involved construction of new housing. A project can have indirect growth-inducement potential if it would establish substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises) or if it would involve a substantial construction effort with substantial short-term employment opportunities and indirectly stimulate the need for additional housing and services to support the new employment demand. Similarly, under CEQA, a project would indirectly induce growth if it would remove an obstacle to additional growth and development, such as removing a constraint on a required public service. An example of this indirect effect would be the expansion of a wastewater treatment plant, which might allow for more development in service areas. Under CEQA, growth is not considered necessarily detrimental or beneficial.

Based on the CEQA definition above, assessing the growth-inducement potential of the proposed program involves answering the question: “Would implementation of the proposed program

directly or indirectly support economic expansion, population growth, or residential construction?" Stormwater is typically not one of the chief public services needed to support urban development; however, water supply is needed to support urban development. Additional water supply would play a role in supporting additional growth in the Enhanced Watershed Management Program (EWMP) areas, but it would not be the single impetus to such growth. In addition, factors such as the General Plans and policies of the cities and Los Angeles County (County) and/or the availability of wastewater disposal capacity, public schools, and transportation services also influence business and residential or population growth in the EWMP areas. Economic factors, in particular, greatly affect development rates and locations.

5.2 Methodology

Growth inducement may result in adverse impacts if the growth is not consistent with the land use plans and growth management plans and policies for the area affected. Local land use plans provide for land use development patterns and growth policies that allow for the orderly expansion of urban development supported by adequate urban public services, such as water supply, roadway infrastructure, sewer service, and solid waste service. A project that would induce "disorderly" growth that is in conflict with local land use plans could indirectly cause additional adverse environmental impacts and impacts to other public services. Thus, it is important to assess the degree to which the growth accommodated by a project would or would not be consistent with applicable land use plans.

To determine direct growth-inducement potential, the proposed program was evaluated to verify whether an increase in population or employment, or the construction of new housing would occur as a direct or indirect result of the program. If either of these scenarios occurred, the proposed program could result in direct growth-inducement within the EWMP areas.

5.3 Growth-Inducement Potential and Significant and Irreversible Effects

The proposed program intends to improve stormwater quality through implementation of both structural and non-structural Best Management Practices (BMPs), with the goal of complying with the requirements of the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit to reduce the impact of stormwater and non-stormwater on receiving water quality within the EWMP areas. Structural BMPs would include BMPs categorized as distributed, centralized, or regional. Distributed structural BMPs treat runoff close to the source and are typically implemented at a single- or few-parcel level. Centralized structural BMPs treat runoff from multiple parcels. Regional structural BMPs are larger in scale, and are meant to retain and/or treat the 85th percentile storm over 24 hours from a contributing area. The major functions of these three types of structural BMPs are infiltration, treatment, and storage; they may be used individually or in combination with one another. Although there would be construction involved, the structural BMPs would largely be implemented in urbanized areas including streets, sidewalks, parking lots, and parks.

The proposed program is not a land use project and its implementation would not introduce new residential or commercial buildings or any other growth-inducing land uses. The structural BMPs would augment the physical structure of established communities, blending in as part of the existing landscape and enhancing the water quality of existing communities. As a result, the proposed program would not induce population growth.

The proposed program would expand stormwater capture abilities, increasing groundwater recharge and improving the quality of stormwater runoff into receiving waters in the Los Angeles region. The program would not include construction of residential or commercial buildings and thus would not increase the demand for or require new public services and utilities facilities (including water supply, fire protection and other emergency services, public education, and parks and recreation facilities). The nature of the proposed program is to increase stormwater recharge and improve stormwater quality; such activities would not result in increased economic activity or population growth in the EWMP areas. And the amount of water recharged as part of the proposed program is anticipated to support existing water supply needs and reduce dependence on imported water supplies.

The non-structural BMPs associated with the proposed program consist of policies, actions, and activities intended to prevent pollutants from entering stormwater runoff, thus eliminating the source of the pollutants. Examples include irrigation control, covered trash receptacles, replacement of brake pads and lead in wheel weights, pet waste cleanup stations, street sweeping, catch basin cleaning, and downspout disconnect programs, all aiming to prevent and/or reduce runoff and/or pollution close to the source. These BMPs would not include construction activities and would not result in direct or indirect growth-inducement within the EWMP areas.

5.4 Secondary Effects of Growth

Implementation of the proposed program would not result in a direct or indirect increase in population or employment. The proposed program itself, therefore, is not growth-inducing and would not induce secondary effects of growth. While one of the main goals of the EWMPs is to increase infiltration and potentially increase recharge of stormwater into the groundwater basin, the amount of water potentially recharged would not be enough to indirectly support population growth and is intended to support existing water supply needs. This potential additional recharge would contribute to local water supply needs but would not alter population demographics. Therefore, there would be no secondary effects of growth.

5.5 Significant Irreversible Environmental Changes

CEQA Guidelines 21100(b) (2) and 15126.2(b) require that any significant effect on the environment that would be irreversible if the project is implemented must be identified. A project would generally result in a significant irreversible impact if:

- Primary and secondary impacts (such as roadway improvements that provide access to previously inaccessible areas, etc.) would commit future generations to similar uses.
- The project would involve a large commitment of nonrenewable resources.

- The project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project.

In accordance with Section 21100(b)(2)(B) of CEQA and Sections 15126(c) and 15126.2(c) of the CEQA Guidelines, the purpose of this section is to identify significant irreversible environmental changes that would be caused by implementation of the proposed program. Construction and operational impacts associated with implementation of the program would result in an irretrievable and irreversible commitment of natural resources through the use of fossil fuels and construction materials. Operation of the program would incrementally increase power consumption associated with stormwater BMPs requiring pump stations. The program's incremental increased use of these resources, however, would not significantly increase the overall commitment of resources associated with stormwater and would in fact increase conservation of other valuable resources. The proposed program would involve only minor incremental use of nonrenewable resources and would locate facilities primarily on lands already developed. Furthermore, since the implementing agencies would implement the mitigation measures identified in this Program Environmental Impact Report in concert with other ongoing stewardship and watershed protection activities, implementation of the proposed program would not result in significant irreversible environmental changes. When completed, the proposed program would provide a high level of water quality protection as well as increase water conservation throughout the EWMP areas.

CHAPTER 6
Alternatives Analysis

6.1 Introduction

According to the California Environmental Quality Act (CEQA) Guidelines, an Environmental Impact Report (EIR) must describe a reasonable range of alternatives to a proposed project that could feasibly attain most of the basic project objectives, and would avoid or substantially lessen any of the proposed project's significant environmental effects. This alternatives analysis summarizes the alternatives screening process conducted to identify feasible alternatives to the proposed Enhanced Watershed Management Programs (EWMPs). Information to select an "environmentally superior alternative," which may be the proposed program, is also provided in this chapter.

Section 15126.6(f) of the CEQA Guidelines provides direction on the required alternatives analysis:

> "The range of alternatives required in an EIR is governed by a 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making."

An EIR need not consider every conceivable alternative to a project. Rather, the alternatives must be limited to ones that meet the project objectives, are feasible, and would avoid or substantially lessen at least one of the significant environmental effects of the project. "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors. Section 15126.6(b) of the CEQA Guidelines states that an EIR:

> "... must identify ways to mitigate or avoid the significant effects that a project may have on the environment, the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or could be more costly."

Section 15126.6 (d) of the CEQA Guidelines provides further guidance on the extent of alternatives analysis required:

> "The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed."

The EIR must briefly describe the rationale for selection and rejection of alternatives and the information the Lead Agency relied on when making the selection. It also should identify any alternatives considered but rejected as infeasible by the lead agency during the scoping process and briefly explain the reasons for the exclusion. Alternatives may be eliminated from detailed consideration in the EIR if they fail to meet most of the project objectives, are infeasible, or do not avoid any significant environmental effects.

Section 15126.6(e)(1) of the CEQA Guidelines also requires that the "no project" alternative be addressed in this analysis. The purpose of evaluating the "no project" alternative is to allow decision-makers to compare the potential consequences of the proposed program with the consequences that would occur without implementation of the proposed program.

Finally, an EIR must identify the environmentally superior alternative. The "no project" alternative may be environmentally superior to the proposed program based on the minimization or avoidance of physical environmental impacts. However, the "no project" alternative must also achieve the project objectives in order to be selected as the environmentally superior alternative. CEQA Guidelines Section 15126.6(e)(1) requires that if the environmentally superior alternative is the "no project" alternative, the EIR shall identify an environmentally superior alternative among other alternatives.

6.2 Review of Proposed Program Goals and Objectives

The alternatives presented in this chapter were analyzed for their abilities to reduce significant program impacts and meet the objectives of the proposed program, which are:

- To collaborate among agencies (Permittee jurisdictions) across the watershed to promote more cost-effective and multi-beneficial water quality improvement projects to comply with the Municipal Separate Storm Sewer System (MS4) Permit.
- To develop watershed-wide Enhanced Watershed Management Programs (EWMPs) that would, once implemented, remove or reduce pollutants from dry- and wet-weather urban runoff in a cost-effective manner.
- To reduce the impact of stormwater and non-stormwater on receiving water quality.

6.3 Review of Significant Environmental Impacts

CEQA Guidelines Sections 21100(b) (2) and 15126.2(b) require that any significant and unavoidable effect on the environment must be identified. In addition, CEQA Guidelines 15093(a) allows the decision-making agency to determine if the benefits of a proposed project outweigh the unavoidable adverse environmental impacts of implementing the project. The Lead Agency can approve a project with unavoidable adverse impacts if it prepares and adopts a "Statement of Overriding Considerations" setting forth the specific reasons for making such a judgment. Unavoidable adverse impacts identified in this Program Environmental Impact Report (PEIR) are discussed in this section. For each of the unavoidable adverse impacts, the Los Angeles County Flood Control District (LACFCD) must prepare and adopt a Statement of Overriding Considerations if the program is approved.

Chapters 3 and 4 provide analyses of potentially significant impacts that could result from implementation of the proposed program. **Table 6-1** identifies the potentially significant and unavoidable impacts associated with implementation of the proposed program. The range of alternatives required to be evaluated in an EIR is limited to those alternatives that would avoid or substantially lessen any significant effects of the proposed program and could feasibly attain most of the program objectives.

6.4 Program-Level Alternatives Analysis

In accordance with the CEQA "rule of reason," an EIR is required to consider a range of alternatives that permit a reasoned choice and that are "limited to ones that would avoid or substantially lessen any of the significant effects of the project" (CEQA Guidelines Section 15126.6(f)). The Lead Agency conducted an alternatives screening process to identify feasible alternatives to the proposed program. The screening process for identifying viable alternatives included consideration of the following criteria:

- Ability to meet the program objectives
- Ability to reduce significant environmental effects of the proposed program
- Economic and engineering feasibility

Based on these criteria, the Lead Agency has identified the following alternatives:

- No Program Alternative
- Non-Structural Best Management Practices (BMPs) Only Program Alternative
- Distributed Structural BMPs Only Program Alternative (no centralized and regional)

TABLE 6-1
SUMMARY OF PROGRAM IMPACT ANALYSIS

Issue Area	Significance Determination
Aesthetics	LSM
Air Quality (Construction)	**SU**
Air Quality (Operation)	LTS
Air Quality (Cumulative Construction)	**SU**
Biological Resources (Direct and Cumulative)	LSM
Cultural Resources	**SU**
Cultural Resources (Cumulative)	**SU**
Geology and Soils/Mineral Resources (Direct and Cumulative)	LSM
Greenhouse Gas Emissions	LTS
Hazards and Hazardous Materials (Direct and Cumulative)	LSM
Hydrology and Water Quality (Direct and Cumulative)	LSM
Land Use and Planning/Agriculture (Direct and Cumulative)	LTS
Noise (Construction)	**SU**
Noise (Operation)	LTS
Noise (Cumulative)	**SU**
Population and Housing and Environmental Justice (Direct and Cumulative)	LTS
Public Services/Recreation (Direct and Cumulative)	LTS
Traffic and Transportation (Direct and Cumulative)	LSM
Utilities and Service Systems (Direct and Cumulative)	LSM
Growth Inducement (Direct/Indirect)	LTS

LTS = Less than Significant
LSM = Less than Significant with Mitigation
SU = Significant and Unavoidable

SOURCE: ESA 2014.

6.4.1 No Program Alternative

The CEQA Guidelines require an analysis of the specific alternative of "no project" (CEQA Guidelines, Section 15126.6). Specifically, the CEQA Guidelines state that "[t]he purpose of describing and analyzing a 'no project' alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project." The "no project" alternative is not necessarily the same as the baseline used to determine the environmental impacts of the proposed program. The analysis of the no project alternative includes the existing baseline environmental conditions as well as "what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services" (CEQA Guidelines, Section 15126.6 (e)(2)). The analysis of impacts related to the no project alternative includes projecting what would reasonably be expected to occur "in the foreseeable future if the project were not approved."

The No Program Alternative (please note: for the sake of this EWMP, this PEIR will use the term "No Program Alternative") would result in the non-implementation of the EWMP approach allowed in the MS4 Permit. Although this would not necessarily result in noncompliance with MS4 Permit since preparation of the EWMPs is an optional compliance method, each Permittee would be required to reach water quality objectives for MS4 discharges on their own, with no clear compliance strategy. The collaborative approach outlined in the MS4 Permit would not be available to each Permittee. Under the No Project Alternative, each Permittee would construct BMPs necessary to achieve compliance, some of which would be similar to the proposed alternative. This includes the construction of distributed, centralized, and regional BMPs necessary to achieve local discharge compliance.

Ability to Meet Program Objectives

The No Program Alternative would not meet the EWMP objective to collaborate among agencies across the watershed to promote more cost-effective and multi-beneficial water quality improvement projects, but it would meet the other objectives to remove or reduce pollutants from dry- and wet-weather urban runoff and reduce the impact of stormwater and non-stormwater on receiving water quality through implementation of structural and non-structural BMPs.

The No Project Alternative would not necessarily avoid the potential environmental impacts that would occur as a result of implementing the EWMPs, as compliance with the MS4 Permit is still required. However, to achieve compliance with the MS4 Permit, each of the BMPs would need to be installed rapidly to avoid permit violations. There would be less coordination within each watershed, which could result in inefficient or redundant BMPs based on municipal boundaries rather than watershed boundaries. Potential impacts of this alternative are discussed in the following pages.

Aesthetics

Under the No Project Alternative, each Permittee would implement BMPs within their jurisdictions that would result in aesthetic modifications similar to the proposed alternative. The impacts to aesthetics throughout the watershed would be site specific, similar to the proposed alternative. [Similar impacts]

Air Quality

Air emissions resulting from the construction of BMPs under the No Project Alternative would be similar to the proposed alternative since both alternatives would require installation of similar types of BMPs requiring similar types of construction methods. However, because the programs would need to be installed rapidly and because more BMPs would likely be required as a result of the inefficiencies of municipal boundaries, slightly more construction emissions would result. [Slightly greater impacts]

Biological Resources

Impacts to biological resources would be similar to the proposed alternative. The potential impacts to biological resources throughout the watershed would be site specific, but the BMP locations would be similar to those identified under the proposed alternative. [Similar impacts]

Cultural Resources

Impacts to cultural resources would be similar to the proposed alternative. The potential impacts to cultural resources throughout the watershed would be site specific, but the BMP locations would be similar to those identified under the proposed alternative. [Similar impacts]

Geology and Soils/Mineral Resources

Impacts to geological and mineral resources would be similar to the proposed alternative since impacts would be site specific and within similar locations. [Similar impacts]

Greenhouse Gases

Construction of the BMPs would result in only minor greenhouse gas (GHG) emissions. GHG emissions would be similar to the proposed alternative since similar BMPs would be constructed. In terms of the cumulative impact to global climate change, the impact would be similar to the proposed alternative. [Similar impacts]

Hazards and Hazardous Waste

Impacts to hazards and hazardous waste would be similar to the proposed alternative since impacts would be site specific and within similar locations. Localized subsurface contamination could be affected by any of the BMP types and individual projects would be subject to similar preconstruction evaluations to assess suitability of the location. [Similar impacts]

Hydrology and Water Quality

Achieving water quality objectives required in the MS4 Permit immediately would be difficult under the No Program Alternative since the permit does not allow for an installation grace period outside of the EWMP. The potential for noncompliance with the MS4 Permit under this alternative would result in a significant impact compared to that of the proposed alternative. [Greater impacts]

Land Use Planning/Agriculture

Impacts to land use would be similar to the proposed alternative since impacts would be site specific and within similar locations. [Similar impacts]

Noise

Noise resulting from the construction of BMPs under the No Project Alternative would be similar to the proposed alternative since both alternatives would require installation of similar types of BMPs requiring similar types of construction methods in similar locations. [Similar impact]

Population and Housing

Impacts to population and housing would be similar to the proposed alternative since impacts would be site specific and within similar locations. [Similar impact]

Recreation

Impacts to recreation would be similar to the proposed alternative since impacts would be site specific and within similar locations. [Similar impact]

Transportation and Circulation

Impacts to transportation and circulation would be similar to the proposed alternative since impacts would be site specific and within similar locations. [Similar impacts]

Utilities and Service Systems

Impacts to utilities and service systems would be similar to the proposed alternative since impacts would be site specific and within similar locations. [Similar impacts]

6.4.2 Non-Structural BMPs Only Project Alternative

The Non-Structural BMPs Only Project Alternative would involve implementation of the proposed program and its associated non-structural BMPs only. No structural BMPs would be implemented as the significant and unavoidable impacts are generally related to construction activities associated with the structural BMPs. For example, the significant and unavoidable air quality, noise, and cultural resources impacts would be avoided through implementation of non-structural BMPs only because non-structural BMPs would not result in construction activities.

The proposed program would focus on implementation of policies, actions, and activities that are intended to prevent pollutants from entering stormwater runoff, thus eliminating the source of the pollutants.

Ability to Meet Program Objectives

The Non-Structural BMPs Only Project Alternative would avoid the potential environmental impacts that would occur as a result of implementing the proposed program. While these measures would help to improve water quality in the EWMP areas, sole reliance on these non-structural BMPs may not provide the level of water quality treatment needed to meet the water quality objectives of the Regional Water Quality Control Board Basin Plan and as required by the MS4 Permit. The Non-Structural BMPs Only Project Alternative may not meet the objectives of the proposed program to collaborate among agencies to promote more cost-effective and multi-beneficial water quality improvement projects because Non-Structural BMPs are generally implemented individually in each jurisdiction, so collaboration efforts for cost-effective solutions diminishes with implementation of non-structural BMPs only. Nonetheless, potential impacts of this alternative are discussed in the following pages.

Impact Analysis

Aesthetics

The Non-Structural BMPs Only Project Alternative would avoid construction impacts identified in the proposed alternative. However, many BMPs, such as green-streets and grassy swales, would improve local aesthetics. The Non-Structural BMPs Only Project Alternative would minimize this multi-purpose benefit of the project. [Greater impacts]

Air Quality

The Non-Structural BMPs Only Project Alternative would avoid construction impacts identified in the proposed alternative. The elimination of construction emissions throughout the region would result in the use of fewer off-road vehicles and fewer emissions. [Fewer impacts]

Biological Resources

The Non-Structural BMPs Only Project Alternative would avoid direct impacts to biological resources from construction. Although dry-weather flows would be reduced under this alternative, relying solely on non-structural BMPs would be less effective than the combination of BMPs planned in the proposed alternative. Impacts to biological resources would be less under the Non-Structural BMPs Only Project Alternative. [Fewer impacts]

Cultural Resources

The Non-Structural BMPs Only Project Alternative would avoid construction impacts, resulting in fewer impacts to cultural resources. [Fewer impacts]

Geology and Soils/Mineral Resources

The Non-Structural BMPs Only Project Alternative would avoid construction impacts and infiltration impact, resulting in fewer impacts to geological resources. The potential for increased unstable soils from infiltration would be reduced under this alternative. [Fewer impacts]

Greenhouse Gases

The Non-Structural BMPs Only Project Alternative would avoid construction impacts identified in the proposed alternative. The elimination of construction emissions throughout the region would result in fewer GHG emissions. [Fewer impacts]

Hazards and Hazardous Waste

The Non-Structural BMPs Only Project Alternative would avoid construction impacts and infiltration impact, resulting in fewer impacts to hazards. The potential for increased mobilization of contamination in soils would be reduced under this alternative. [Fewer impacts]

Hydrology and Water Quality

The water quality benefit provided by the structural BMPs would be eliminated under this alternative. Achieving water quality objectives required in the MS4 Permit with no structural

BMPs would be unlikely. The potential for non-compliance with the MS4 Permit under this alternative would result in a significant impact of the alternative. [Greater impacts]

Land Use Planning/Agriculture

The Non-Structural BMPs Only Project Alternative would avoid construction impacts and infiltration impact, resulting in fewer impacts to land uses and agriculture. [Fewer impacts]

Noise

The Non-Structural BMPs Only Project Alternative would avoid construction impacts and infiltration impact, resulting in fewer impacts to noise. [Fewer impacts]

Population and Housing

The avoidance of construction would not affect population and housing. Impacts would be similar to the proposed alternative. [Similar impacts]

Recreation

The avoidance of construction would not affect recreation. Impacts would be similar to the proposed alternative. [Similar impacts]

Transportation and Circulation

The avoidance of construction would reduce impacts to transportation and circulation. Impacts would be less than the proposed alternative. [Fewer impacts]

Utilities and Service Systems

The avoidance of construction and increased infiltration would reduce impacts to utilities and service systems. Impacts would be less than the proposed alternative. [Fewer impacts]

6.4.3 Distributed Structural and Non-Structural BMPs Only Program Alternative (No Centralized or Regional)

The Distributed Structural BMPs Only Project Alternative would involve implementation of the proposed program and only its associated distributed structural BMPs and non-structural BMPs. Since much of the impacts of program implementation would occur during construction of the large-scale regional and centralized BMPs, this alternative would result in fewer construction impacts than the proposed project.

Ability to Meet Program Objectives

The Distributed Structural BMPs Only Program Alternative would meet the objectives of the proposed program to collaborate among agencies to promote more cost-effective and multi-beneficial water quality improvement projects. However, because distributed structural BMPs tend to be smaller in nature and typically are distributed widely throughout the watershed, more BMPs may be necessary to meet water quality objectives in the MS4 Permit. The ability to meet

the water quality objectives would be less certain under this alternative. Potential impacts of this alternative are discussed in the following pages.

Impact Analysis

Aesthetics

Constructing more distributed BMPs and no large-scale regional or centralized BMPs would result in similar aesthetics impacts on the regional level within each watershed. Although more widely dispersed projects would result in more locations being subjected to short-term construction activities, post-construction impacts would largely be beneficial, since green-streets and small-scale grassy swales would be installed that generally would improve local character in urban settings. In addition, any adverse post-construction impacts to local aesthetics from the larger BMPs would be avoided. [Fewer impacts]

Air Quality

Constructing fewer large-scale BMPs would result in fewer daily emissions. Although construction of more widely dispersed small-scale BMPs may increase the number of construction projects, the smaller size would result in the use of fewer off-road vehicles and fewer emissions. [Fewer impacts]

Biological Resources

Constructing fewer large-scale BMPs would result in impacts similar to biological resources as the proposed alternative. Impacts to biological resources from construction of BMPs would be site specific regardless of the type of program being implemented. The potential to reduce surface flows supporting riparian and wetland resources would be similar to the proposed alternative. [Similar impacts]

Cultural Resources

Constructing fewer large-scale BMPs, but more small-scale BMPs would have similar impacts to cultural resources as the proposed alternative. Impacts to cultural resources would be site specific regardless of the type of project being implemented. [Similar impacts]

Geology and Soils/Mineral Resources

Impacts to geological and mineral resources would be similar to the proposed alternative since impacts would be site specific regardless of the type of BMPs being built. [Similar impacts]

Greenhouse Gases

Construction of the BMPs would result in only minor GHG emissions. Constructing fewer large-scale BMPs would result in fewer GHG emissions overall, but in terms of the cumulative impact to global climate change, the impact would be similar to the proposed alternative. [Similar impacts]

Hazards and Hazardous Waste

Impacts to hazards and hazardous waste would be similar to the proposed alternative since impacts would be site specific regardless of the type of BMPs being built. Localized subsurface contamination could be affected by any of the BMP types and individual projects would be subject to similar preconstruction evaluations to assess suitability of the location. [Similar impacts]

Hydrology and Water Quality

The water quality benefit provided by the large-scale regional BMPs would be eliminated under this alternative. Achieving water quality objectives required in the MS4 Permit with a greater number of small-scale BMPs may be unlikely if larger regional BMPs are not constructed. The potential for noncompliance with the MS4 Permit under this alternative would result in a significant impact compared to that of the proposed alternative. [Greater impact]

Land Use Planning/Agriculture

Construction of a greater number of BMPs would have greater impacts to land uses within each watershed since more projects would be required. The large-scale BMPs would be located in areas with sufficient developable space. Eliminating use of these large open-space areas would disperse land use acquisition and compatibility impacts throughout the watershed. Impacts would be greater under this alternative. [Greater impacts]

Noise

Construction of more BMPs would subject a greater number of people to temporary construction noise. However, impacts from the longer-term construction of large BMPs would be avoided. Since impacts would be site specific, impacts from construction noise would be similar to the proposed alternative. [Similar impacts]

Population and Housing

Construction of more small-scale BMPs and fewer large-scale BMPs would have similar effects to population and housing as the proposed alternative. [Similar impacts]

Recreation

Construction of more small-scale BMPs and fewer large-scale BMPs would have similar effects to recreation within the watersheds. Impacts would be site specific under either alternative. [Similar impacts]

Transportation and Circulation

Construction of more small-scale BMPs and fewer large-scale BMPs would have similar effects to transportation and circulation within the watersheds. Smaller projects would have shorter duration impacts to roadways, but would occur in more locations. Impacts would be site specific under either alternative. [Similar impacts]

Utilities and Service Systems

Construction of more small-scale BMPs and fewer large-scale BMPs would have similar effects to utilities and service systems as the proposed alternative. Construction impacts would be site specific. [Similar impacts]

6.5 Comparison of Alternatives

This section provides a summary comparison of the alternatives relative to the proposed program, with respect to their ability to meet program objectives and their relative environmental impacts compared to the proposed program. **Table 6-2** summarizes the ability of the proposed program, the No Program Alternative, the Non-Structural BMPs Only Project Alternative, and the Distributed Structural and Non-Structural BMPs Only Project Alternative to meet the program objectives; it also summarizes the environmental impacts of these alternatives relative to the proposed program.

6.6 Alternatives Suggested in Scoping

Several alternatives were suggested in comment letters received during the Notice of Preparation (NOP) Scoping process. These comments are included in Appendix A. One comment letter from Dr. Tom Williams representing the Sierra Club suggested that the PEIR include an assessment of several funding mechanism alternatives, including: Single Parcel Fee Assessment, Parcel Area Fee Assessment, Hybrid Parcel Area Fee Assessment, Zero Discharge Assessment, and Large Parcel Assessment. These suggested alternatives would not lessen any significant environmental impacts of the Program and were therefore not considered in this PEIR. Although CEQA allows for discussion of economic impacts and project costs as measures of feasibility, the funding mechanisms required to implement projects are generally not susceptible to environmental analysis. For these reasons, these suggested alternatives were not evaluated as program alternatives for CEQA compliance.

In addition to the fee assessment alternatives, the comment suggested a Full Capture and Recharge of Flows Greater than 100 cfs Alternative. This suggested alternative was rejected from further consideration because of the infeasibility of capturing all storm flows in Los Angeles County. The retention basins required to retain all storm flows in the County would be unrealistic, requiring most of the developed land in the County to be accomplished. The comment may have been suggesting full capture of all flows less than 100 cfs, but, again, this alternative was rejected from further consideration for the same reason: that the retention basins needed to retain and recharge all flows in Los Angeles County waterways less than 100 cfs would require enormous areas of undeveloped lands that are currently developed. Furthermore, groundwater recharge is only feasible in certain areas of the County because of the poor percolation capacity of surficial soils in some areas. The accumulation of subsurface clay lenses creates recharge barriers in many places of the County, making retention and recharge of large quantities of stormwater infeasible in these locations.

TABLE 6-2
ABILITY OF PROJECT ALTERNATIVES TO MEET PROJECT OBJECTIVES

	Proposed Program	No Project	Non-Structural BMPs Only	Distributed Structural/Non-Structural BMPs Only
Project Objectives				
To collaborate among agencies (Permittee jurisdictions) across the watershed to promote more cost-effective and multi-beneficial water quality improvement projects to comply with the MS4 Permit.	Yes	No	No	No
To develop watershed-wide EWMPs that will, once implemented, remove or reduce pollutants from dry- and wet-weather urban runoff in a cost-effective manner.	Yes	No	No	No
To reduce the impact of stormwater and non-stormwater on receiving water quality.	Yes	Yes	No	Yes
Environmental Impacts				
Aesthetics	LSM	Similar	Greater	Fewer
Air Quality (construction/operation)	SU/LTS	Similar	Fewer	Similar
Biology	LSM	Similar	Fewer	Similar
Cultural Resources	SU	Similar	Fewer	Similar
Geology/Mineral Resources	LSM	Similar	Fewer	Similar
Greenhouse Gases	LTS	Similar	Fewer	Similar
Hazards and Hazardous Materials	LSM	Similar	Fewer	Similar
Hydrology and Water Quality	LSM	Greater	Greater	Greater
Land Use/Agriculture	LTS	Similar	Similar	Greater
Noise (construction/operation)	SU/LTS	Similar	Fewer	Similar
Public Services/Recreation	LTS	Similar	Similar	Similar
Population and Housing and Environmental Justice	LTS	Similar	Similar	Similar
Transportation and Traffic	LSM	Similar	Fewer	Similar
Utilities and Service Systems	LSM	Similar	Fewer	Similar

LTS = Less than Significant
LSM = Less than Significant with Mitigation
SU = Significant and Unavoidable

6.7 Environmentally Superior Alternative

CEQA requires that an EIR identify the environmentally superior alternative(s) of a project other than the proposed program or the "no project" alternative (CEQA Guidelines Section 15126.6 (e)(2)). As stated at the beginning of this chapter, the purpose of this alternatives analysis is to consider a reasonable range of alternatives that could feasibly attain most of the basic project objectives and avoid or substantially lessen significant program impacts.

The No Program Alternative would require that individual Permittees design and construct BMPs locally to achieve MS4 Permit compliance. As a result, impacts from construction of large and small BMPs would be similar to the proposed alternative. None of the significant and unavoidable impacts of the proposed alternative would be avoided by this alternative. Furthermore, since the ability to achieve compliance with MS4 Permit water quality objectives would be reduced if each Permittee were on their own, impacts to water quality would be greater under this alternative.

The Distributed Structural BMPs Only Alternative would result in construction of an increased number of distributed BMPs, but would avoid construction and operational impacts associated with the large-scale centralized and regional BMPs. Many of the significant and unavoidable impacts of the proposed alternative would be avoided or substantially minimized under this alternative, including construction impacts involving noise and air emissions. However, since the ability to achieve compliance with MS4 Permit water quality objectives would be reduced without the larger-scale centralized and regional BMPs, impacts to water quality would be greater under this alternative.

The Non-Structural BMPs Only Alternative would avoid all of the significant and unavoidable impacts associated with construction of the structural BMPs. In addition, nearly all of the impacts associated with the proposed alternative would be avoided, including impacts from infiltration to neighboring subsurface structures, mobilization of contaminants, and site-specific impacts to cultural and biological resources. However, since the ability to achieve compliance with MS4 Permit water quality objectives would be substantially reduced, impacts to water quality would be greater under this alternative, and compliance with the MS4 Permit would be unlikely. Even though this alternative would avoid significant and unavoidable impacts of construction and operation of structural BMPs, the failure to meet water quality objectives and achieve MS4 Permit compliance would outweigh the avoidance of the other impacts. In order to reduce overall potential impacts, the EWMPs will emphasize the use of non-structural BMPs that include true source control measures , e.g. reduction of copper in brake pads through enacted state-wide legislation. Furthermore, as discussed, due to the difficultly of locating larger regional BMPs, the use of distributed BMPs with a lower potential for impact will be emphasized in the EWMPs as well. 6-16,

As a result, since the proposed alternative would provide the best chance of achieving regional water quality objectives, it is considered the environmentally superior alternative.

CHAPTER 7
Organizations and Persons Contacted

7.1 Participating Permittees

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2. Peninsula Cities – Andy Winje, Rancho Palos Verdes
3. Upper Los Angeles River - Alfredo Magallanes , City of Los Angeles
4. Marina del Rey – Bruce Hamamoto, County of Los Angeles
5. Santa Monica Bay Jurisdictional Group 2 & 3 – Huub Cox, City of Los Angeles
6. Beach Cities – Elaine Jeng, Redondo Beach
7. Ballona Creek – Huub Cox, City of Los Angeles
8. Santa Clara – Heather Merenda, Santa Clarita
9. Rio Hondo/San Gabriel River – Jane Carlson, Sierra Madre
10. Malibu Creek Watershed – Alex Farassati, City of Calabasas
11. North Santa Monica Bay Coastal Watersheds – Jennifer Brown, Malibu
12. Upper San Gabriel River – Jolene Guerrero, County of Los Angeles

7.2 NOP and Distribution List

Refer to **Appendix A** for a copy of the Notice of Preparation and distribution/mailing list.

CHAPTER 8
Report Preparers

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CHAPTER 9
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Appendix A
Notice of Preparation

ESA

Notice of Preparation

Date	August 29, 2014
To:	California Office of Planning and Research, Responsible and Trustee Agencies and Interested Parties
Subject:	Notice of Preparation of a Draft Program Environmental Impact Report
Project:	Enhanced Watershed Management Programs
Lead Agency:	Los Angeles County Flood Control District
Review Period:	August 29, 2014 through September 29, 2014

The Los Angeles County Flood Control District (LACFCD) will be the Lead Agency and will prepare a Program Environmental Impact Report (PEIR) for the project identified in this notice. We need to know the views of you or your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. This Notice of Preparation (NOP) has been prepared to notify agencies and interested parties that the LACFCD is beginning preparation of a PEIR pursuant to the California Environmental Quality Act (CEQA) for its proposed Enhanced Watershed Management Programs (EWMPs, or "program").

The Los Angeles County Flood Control Act was adopted by the State Legislature in 1915 and established the LACFCD and empowered it to provide flood risk management, water conservation, and recreation and aesthetic enhancement within its boundaries. The LACFCD is governed as a separate entity by the Board of Supervisors of the County of Los Angeles and is operated by the County's Department of Public Works. The LACFCD encompasses more than 3,000 square miles, 85 cities, and approximately 2.1 million land parcels. The LACFCD, the County of Los Angeles, and 84 incorporated cities within Los Angeles County (collectively referred to as Permittees) are covered under a Municipal Separate Storm Sewer System (MS4) Permit (Order No. R4-2012-0175; National Pollutant Discharge Elimination System [NPDES] Permit No. CAS004001) for the discharge of urban runoff to waters of the United States. The purpose of the MS4 Permit is to ensure Permittees are not causing or contributing to exceedances of water quality objectives or impairments of beneficial uses in the receiving waters of the Los Angeles region.

The 2012 MS4 Permit for Los Angeles County gives Permittees the option of implementing an innovative approach to Permit compliance through development of EWMPs. The LACFCD and participating Permittees have opted to exercise this option and have submitted 12 separate Notices of Intent (NOIs) for the development of 12 EWMPs in their respective watershed groups to the Los Angeles Regional Water Quality Control Board (LARWQCB). The LARWQCB is responsible for approval of the EWMPs in compliance with the MS4 Permit. Implementation of the EMWPs would occur following approval by the LARWQCB. The preparation of the 12 separate EWMPs will be a collective effort among the LACFCD and the applicable agencies in each respective EWMP. The 12 EWMPs will vary for each watershed group, but will generally provide the opportunity for Permittees to customize their stormwater programs to achieve compliance with applicable receiving water limitations (RWLs) and water-quality-based effluent limits (WQBELs) in accordance with the MS4 Permit through implementation of stormwater best management practices (BMPs) or watershed control measures. BMPs vary in function and type, with each BMP providing unique design characteristics and benefits from implementation. The overarching goal of BMPs in the EWMP is to reduce the impact of stormwater and non-stormwater on receiving water

quality and address the water quality priorities as defined by the MS4 Permit. The development of each EWMP will involve the evaluation and selection of multiple BMP types, including nonstructural (institutional) and distributed, centralized, and regional structural watershed control measures, that will be implemented to meet compliance goals and strategies under the 2012 MS4 Permit.

The LACFCD, as a regional agency charged with conserving stormwater for use in our local water supply, has a vested interest in increasing opportunities for stormwater capture and groundwater recharge. The LACFCD has flood control infrastructure in each of the EWMP areas and is participating in all 12 EWMPs. The LACFCD will be working with the applicable Permittees and other stakeholders in all 12 EWMP watersheds to develop the EWMPs, which will be implemented by the Permittees that have jurisdiction within each EWMP area. The Permittees implementing the projects defined in the EWMPs, or "implementing agencies," will vary between EWMPs and individual projects. The LACFCD will be an implementing agency only on those projects for which it has been identified in an EWMP as a responsible implementing party.

Project Location: The proposed program would be located in several watersheds of Los Angeles County and would include the following enhanced watershed management groups: Ballona Creek, Beach Cities, Dominguez Channel, Malibu Creek, Marina del Rey, North Santa Monica Bay Coastal Watersheds (NSMBCW), Palos Verdes Peninsula, Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG), Santa Monica Bay, Upper Los Angeles River, Upper San Gabriel River, and Upper Santa Clara River. The project area is indicated in Figure 1.

Broad Range of Potential Benefits from EWMPs: If implemented, the proposed EWMP-generated benefits would include:

- Improved Water Quality
- Reduction in Impairment of Water Bodies for Designated Beneficial Uses
- Promotion of Water Conservation and Supply
- Enhanced Recreation Opportunities
- Support for Public Education Opportunities
- Improved Local Aesthetics
- Management of Flood Risks

Public Comments: The LACFCD is soliciting the views of interested persons and agencies as to the scope and content of the environmental information to be evaluated in the PEIR. In accordance with CEQA, agencies are requested to review the project description in this NOP and provide their comments on environmental issues related to the statutory responsibilities of the agency. The PEIR will be used by LACFCD's governing Board, the Los Angeles County Board of Supervisors, when considering approval of the proposed EWMPs as well as for any related discretionary approvals.

Due to the time limits mandated by state law, all comments to the NOP are due no later than September 29, 2014. Please send your comments to the address shown below. Include a return address or email address and a contact name in your agency with your comments.

Gregg BeGell, P.E.
County of Los Angeles Department of Public Works
Project Management Division II
900 South Fremont Avenue, 5th Floor
Alhambra, CA 91803
(626) 300-3298
gbegell@dpw.lacounty.gov

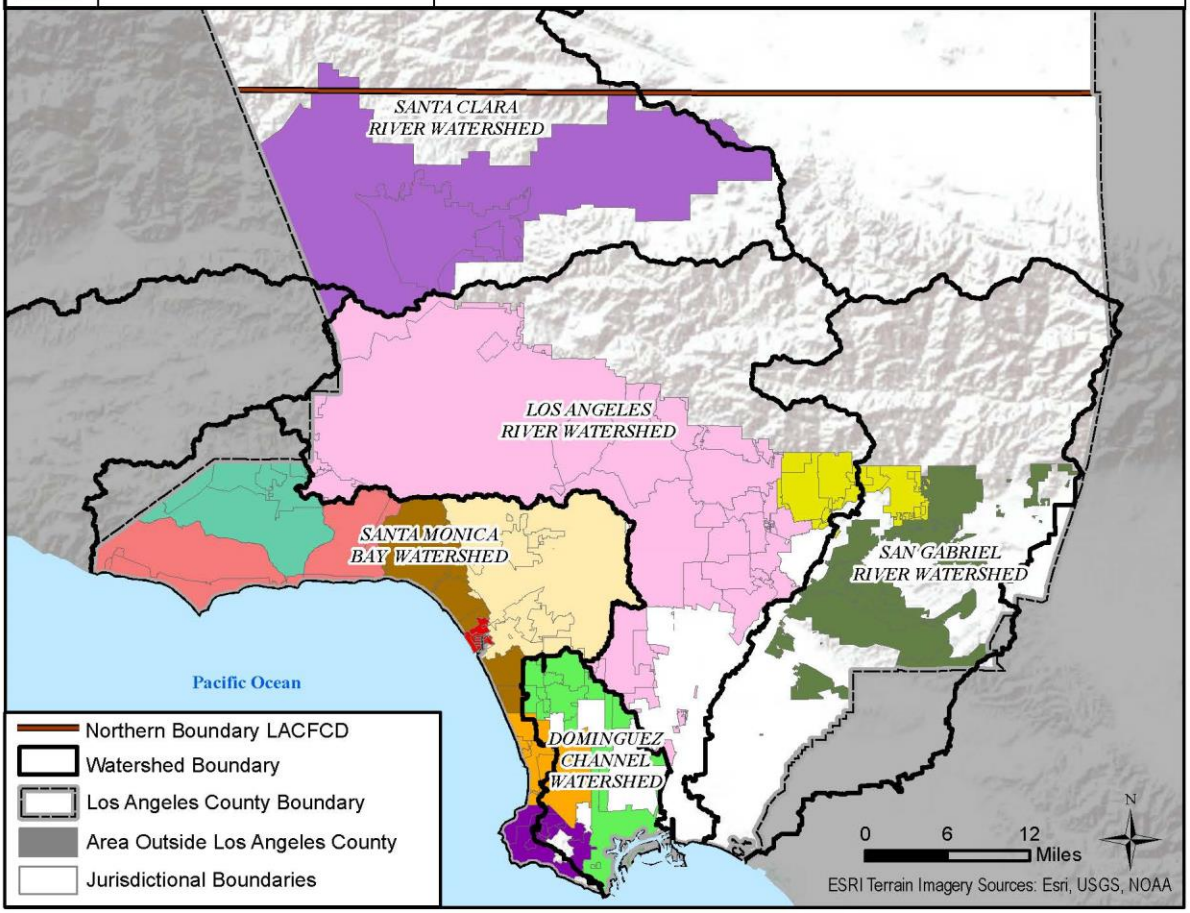
This NOP and other PEIR information, as it becomes available, can be accessed at:
www.LACoH2Osheds.com

Scoping Meetings: Three scoping meetings will be held to receive public comments regarding the scope and content of the PEIR. The scoping meetings will include a brief presentation providing an overview of the proposed program and the CEQA process. After the presentation, oral comments will be accepted. Written comment forms will be supplied for those who wish to submit comments in writing at the scoping meeting. Written comments also may be submitted anytime during the NOP review period. The scoping meetings will be held as follows:

DATE:	Tuesday, September 9, 2014
TIME:	6:00 P.M.
LOCATION:	Chace Park Community Room TBD 13650 Mindanao Way Marina del Rey, CA 90292
DATE:	Wednesday, September 10, 2014
TIME:	6:00 P.M.
LOCATION:	County of Los Angeles Department of Public Works 900 South Fremont Avenue First Floor Conference Room C Alhambra, CA 91803
DATE:	Monday, September 15, 2014
TIME:	6:30 P.M.
LOCATION:	K Dalton Room Community Center 119 W Palm Ave Monrovia, CA 91016

Figure 1: Overview EWMP Groups

Group Name	Cities/Permittees Involved
Ballona Creek	Beverly Hills, Culver City, Inglewood, Los Angeles, Santa Monica, West Hollywood, LA County, LACFCD
Beach Cities Watershed Management Group	Hermosa Beach, Manhattan Beach, Redondo Beach, Torrance, LACFCD
Dominguez Channel Watershed Management Group	El Segundo, Hawthorne, Inglewood, Los Angeles, Lomita, LA County, LACFCD
Malibu Creek Watershed	Agoura Hills, Calabasas, Hidden Hills, Westlake Village, LA County, LACFCD
Marina del Rey	Culver City, Los Angeles, LA County, LACFCD
North Santa Monica Bay Coastal Watersheds	LA County, Malibu, LACFCD
Palos Verdes Peninsula EWMP Agencies	Palos Verdes Estates, Rancho Palos Verdes, Rolling Hills Estates, LA County, LACFCD
Rio Hondo/San Gabriel River Water Quality Group	Arcadia, Azusa, Bradbury, Duarte, Monrovia, LA County, Sierra Madre, LACFCD
Santa Monica Bay Watershed Jurisdictions 2 & 3	Los Angeles, El Segundo, Santa Monica, LA County, LACFCD
Upper Los Angeles River Watershed	Alhambra, Burbank, Calabasas, Glendale, Hidden Hills, La Canada Flintridge, Los Angeles, Montebello, Monterey Park, Pasadena, Rosemead, San Gabriel, San Marino, South Pasadena, Temple City, LA County, LACFCD
Upper San Gabriel River	Baldwin Park, Covina, Glendora, Industry, La Puente, LA County, LACFCD
Upper Santa Clara River Watershed	LA County, Santa Clarita, LACFCD



1. Introduction

The LACFCD along with other applicable Permittees have submitted NOIs to the LARWQCB to develop EWMPs for 12 watershed groups, in accordance with the 2012 MS4 Permit, Order No. R4-2012-0175. The LARWQCB is responsible for approval of the final EWMPs in compliance with the MS4 Permit. Implementation of the EMWPs would occur following approval of the final plan. To begin preparing the EWMPs, the Permittees collaborated on, developed, and submitted Draft Work Plans to the LARWQCB, outlining the proposed approach to preparation of each of their respective EWMPs. The primary approach to each of the EWMPs, as identified in the Draft Work Plans, includes identifying community-friendly, cost-effective methods of reducing urban runoff pollution and incorporating distributed and centralized structural and nonstructural watershed control measures for a multi-pollutant, multi-benefit approach. The EWMPs will also evaluate multi-benefit regional projects that will retain (through infiltration or capture and reuse) the stormwater quality design volume (85^{th} percentile storm for 24 hours) for the runoff from the contributing drainage area.

The proposed project includes the potential nonstructural (institutional) and distributed, centralized, and regional structural watershed control measures described in the Draft Work Plans and detailed in the EWMPs currently under preparation. These measures will be evaluated in the PEIR. The PEIR will provide a program-level assessment of the overall permit compliance effort, focusing particularly on the structural watershed control measures proposed in each of the 12 EWMP areas.

1.1 Project Location

The proposed program includes several watershed management groups of Los Angeles County, which include the following EWMP groups: Ballona Creek, Beach Cities, Dominguez Channel, Malibu Creek, Marina del Rey, North Santa Monica Bay Coastal Watersheds (NSMBCW), Palos Verdes Peninsula, Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG), Santa Monica Bay, Upper Los Angeles River, Upper San Gabriel River, and Upper Santa Clara River. The geographic scope covered by each of these 12 EWMPs is described in further detail below and shown in Figure 1.

- Ballona Creek – The Ballona Creek EWMP area covers the Ballona Creek watershed. The Permittees within this EWMP are the Cities of Beverly Hills, West Hollywood, Los Angeles, Inglewood, Culver City, Santa Monica, and West Hollywood; County of Los Angeles; and LACFCD.

- Beach Cities – The Beach Cities EWMP area covers portions of three watersheds: Santa Monica Bay Watershed Jurisdictional Group (SMB JG) 5 & 6, Dominguez Channel Watershed, and Machado Lake Watershed. The Permittees within this EWMP are the Cities of Redondo Beach, Manhattan Beach, Hermosa Beach, and Torrance; and the LACFCD.

- Dominguez Channel – The Dominguez Channel EWMP area covers portions of three watersheds: Dominguez Channel Watershed, the Machado Lake Watershed, and the Los Angeles/Long Beach Harbors Watershed. The Permittees within this EWMP are the Cities of El Segundo, Hawthorne, Inglewood, Lomita, and Los Angeles; County of Los Angeles; and the LACFCD.

- Malibu Creek – The Malibu Creek Watershed (MCW) EWMP area covers the majority of the MCW. The Permittees within this EWMP are the Cities of Agoura Hills, Calabasas, Hidden Hills, , and Westlake Village; County of Los Angeles; and the LACFCD.

- Marina del Rey – The Marina del Rey EWMP area covers the Marina del Rey Watershed. The Permittees within this EWMP are the Cities of Los Angeles and Culver City; County of Los Angeles; and LACFCD.

- North Santa Monica Bay – The NSMBCW EWMP area covers the SMB JG 1, SMB JG 4, and a portion of Malibu Creek within the City of Malibu's borders. The Permittees within this EWMP are the City of Malibu; County of Los Angeles; and LACFCD.

- Palos Verdes Peninsula – The Palos Verdes Peninsula watershed management area covers most of the SMB JG7, the Los Angeles Harbor subwatershed, and the Machado Lake subwatershed. The Permittees within this EWMP are the Cities of Rancho Palos Verdes, Palos Verdes Estates, and Rolling Hills Estates; County of Los Angeles; and LACFCD.

- Rio Hondo/San Gabriel River – The RH/SGRWQG EWMP area covers portions of the Los Angeles and San Gabriel River watersheds. The Permittees within this EWMP are the Cities of Arcadia, Azusa, Bradbury, Duarte, Monrovia, and Sierra Madre; County of Los Angeles; and LACFCD.

- Santa Monica Bay – The Santa Monica Bay EWMP area covers the central region of the Santa Monica Bay Watershed (SMB JG2 and SMB JG3) and includes the urbanized Dockweiler and Santa Monica subwatersheds, as well as natural open space located in the Castle Rock, Pulga Canyon, Temescal Canyon, and Santa Monica Canyon subwatersheds. The Permittees within this EWMP include the Cities of Los Angeles, Santa Monica, and El Segundo; County of Los Angeles; and LACFCD.

- Upper Los Angeles River – The Upper Los Angeles River EWMP area covers the upper reaches of the Los Angeles River Watershed. The Permittees within this EWMP are the Cities of Alhambra, Burbank, Calabasas, Glendale, Hidden Hills, La Cañada Flintridge, Los Angeles, Montebello, Monterey Park, Pasadena, Rosemead, San Gabriel, San Marino, South Pasadena, and Temple City; County of Los Angeles; and LACFCD.

- Upper San Gabriel River – The Upper San Gabriel River EWMP area covers portions of the San Gabriel River Watershed. The Permittees within this EWMP are the Cities of Baldwin Park, Covina, Glendora, Industry, and La Puente; County of Los Angeles; and LACFCD.

- Upper Santa Clara River – The Upper Santa Clara River EWMP area covers the Upper Santa Clara River Watershed. The Permittees within this EWMP are the City of Santa Clarita; County of Los Angeles; and LACFCD.

2. Background

2.1 Stormwater/Water Quality

MS4 discharges consist of stormwater and non-stormwater generated from municipal land uses that are ultimately discharged into surface waters throughout the region. The MS4 system includes curbs and gutters, man-made channels, catch basins, and storm drains throughout the Los Angeles region. Discharges may adversely affect receiving surface water quality with pollutants such as bacteria, nutrients (nitrogen and phosphorus), aluminum, copper, lead, zinc, diazinon, and cyanide. Aquatic toxicity, particularly during wet weather, is also a concern. Stormwater and non-stormwater discharges of debris and trash are also a pervasive water quality problem in the Los Angeles region. Pollutants in stormwater and non-stormwater may have damaging effects on both human health and aquatic ecosystems.

Water quality assessments conducted by the LARWQCB have identified impairment of beneficial uses of water bodies in the Los Angeles region possibly caused or contributed to by pollutant loading from municipal stormwater and non-stormwater discharges. The MS4 Permit described below is designed to reduce pollutant loads into local surface waters.

2.2 Total Maximum Daily Loads

The federal Clean Water Act (CWA), Section 303(d), requires states to identify waters that do not meet water quality standards despite the treatment by pollution-control technology. States are required not only to identify these "water quality limited segments" but also to prioritize such waters for the purpose of developing Total Maximum Daily Loads (TMDLs). A TMDL is defined as the "sum of the individual waste load allocations (WLAs) for point sources and load allocations for nonpoint sources and natural background" (40 CFR 130.2), such that the capacity of the water body to assimilate constituent loads (the loading capacity) is not exceeded. A TMDL represents an amount of pollution that can be released into a specific water body without causing a decline in water quality and impairment of beneficial uses. The TMDL also allocates the loads among current and future pollutant sources to the water body and forms the basis for WQBELs and RWLs assigned in NPDES permits. LARWQCB and United States Environmental Protection Agency (USEPA) have established 33 TMDLs that identify Los Angeles County MS4 discharges as one of the pollutant sources causing or contributing to these water quality impairments.

2.3 MS4 Permit

On November 8, 2012, the LARWQCB adopted the fourth NPDES MS4 Permit (Order No. R4-2012-0175) for discharges from the MS4 within the coastal watersheds of Los Angeles County. The MS4 Permit became effective on December 28, 2012. The 2012 MS4 Permit establishes the waste discharge requirement for stormwater and non-stormwater discharges within the watersheds of Los Angeles County. The MS4 Permit identifies conditions, requirements, and programs that municipalities must comply with to protect regional water resources from adverse impacts associated with pollutants in stormwater and urban runoff. The MS4 Permit contains effluent limitations, RWLs, Minimum Control Measures (MCMs), TMDL provisions, and outlines the process for developing watershed management programs, including the EWMP.

The 2012 MS4 Permit includes provisions that allow Permittees to voluntarily choose to implement an EWMP to achieve permit compliance with RWLs. The intent of the EWMP is to comprehensively evaluate opportunities, within the participating Permittees' collective jurisdictional boundaries, for collaboration among Permittees and other partners on multi-benefit regional projects that, wherever feasible, retain non-stormwater runoff and also address flood control and/or water supply. Twelve EWMP groups have formed to implement a collaborative approach to meeting the requirements of the 2012 MS4 Permit.

3. Enhanced Watershed Management Plans

The MS4 Permittees listed in Figure 1 submitted 12 NOIs for the development of 12 EWMPs to the LARWQCB. The 12 NOIs were approved by the LARWQCB. The 12 EWMPs being developed in Los Angeles County for the applicable watersheds have been a collaborative effort by the various EWMP agencies.

The EWMPs provide for their respective areas a comprehensive stormwater management plan that optimizes the stormwater and financial resources under the stewardship of the EWMP groups. The EWMPs include multi-benefit stormwater management projects that may also provide environmental, aesthetic, recreational, water supply, and/or other community enhancements in a cost-effective manner.

To begin preparing the EWMPs, the Permittees collaborated on, developed, and submitted Draft Work Plans to the LARWQCB, outlining the proposed approach to preparation of each of their respective EWMPs. The EWMP Work Plans establish the basis for the EWMPs. The EWMP Draft Work Plans describe the path that MS4 Permittees propose to complete the Watershed Management Program requirements of the 2012 MS4 Permit.

In accordance with the provisions of the MS4 permit, the work plans describe the following steps to EWMP development:

1. Identification of water quality priorities, including evaluation of existing water quality conditions, classification of pollutants, assessment of known and suspected pollutant sources in the watershed, and prioritization of water quality issues in the watershed

2. Characterization of existing and potential control measures within the watershed

3. Addressing the approach to incorporate reasonable assurance analysis (RAA) in the optimization of watershed control measures

The LARWQCB is responsible for approval or denial of the EWMPs in compliance with the MS4 Permit. Implementation of the EMWPs would occur following approval by the LARWQCB.

4. EWMP Watershed Control Measures

The MS4 Permit requires Permittees to identify strategies, control measures, and BMPs that will be implemented. Improvements to water quality will be achieved through implementation of watershed control measures that consist of both structural and nonstructural BMPs. BMPs vary in function and type, with each BMP providing unique design characteristics and benefits from implementation. Opportunities for BMP implementation are driven by locations where BMPs are feasible/desirable. The overarching goal of BMPs in the EWMPs is to reduce the impact of stormwater and non-stormwater on receiving water quality and to address water conservation and the water quality priorities. The development of the

EWMPs will involve the evaluation and selection of multiple BMP types, as described in the following pages.

4.1 Structural BMPs

Structural BMPs involve the construction of a physical control measure to alter the hydrology and/or water quality of incoming stormwater or non-stormwater. The three major functions for structural BMPs are infiltration, water quality treatment, and storage, as follows:

- Infiltration – Runoff is directed to percolate into the underlying soils. Infiltration generally reduces the volume of runoff and increases groundwater recharge.
- Water quality treatment – Pollutants are removed through various unit processes, including filtration, settling, sedimentation, sorption, straining, and biological or chemical transformations.
- Storage – Runoff is captured, stored (detained), and slowly released into downstream waters. Storage can reduce the peak flow rate from a site, but does not directly reduce runoff volume.

There are three categories of structural BMPs—regional, centralized, and distributed; they are defined by the runoff area treated by the BMP and the required retention volume in accordance with the Permit. Structural BMPs fall under a variety of subcategories that correspond to their function and water quality benefit. Each of these three categories is described below.

4.1.1 Regional Structural BMPs

"Regional EWMP projects" are defined by the MS4 Permit as multi-benefit regional projects that, wherever feasible, retain all non-stormwater runoff and all stormwater runoff from the 85th percentile, 24-hour storm event for the contributing drainage area, while also achieving other benefits such as flood control and/or water supply. Examples of regional structural BMPs include:

- Infiltration BMPs
  - Surface Infiltration BMPs (Infiltration Basins, Infiltration Trenches, Infiltration Galleries, and Bioretention-implemented as single or multiple types)
  - Multi-Directional Infiltration BMPs (Dry Wells, Hybrid Bioretention, and Dry Wells)
- Detention Basins (promote settling out of larger particles)
- Capture and Use BMPs (underground cisterns, storage, and use as irrigation)

Regional BMPs include infiltration facilities that promote groundwater recharge and detention facilities that encourage settling of larger particles in stormwater flows. Infiltration and detention regional BMPs can be either constructed as open-surface basins or subsurface galleries. Capture and Use BMPs collect and use stormwater where applicable for purposes such as irrigation. All of these BMP types must retain the required design storm volume without release into the MS4 or receiving waters.

Opportunities for Regional BMPs will be identified and evaluated within and across subwatersheds, with focus on the multi-benefit potential for capture and reuse of wet-weather flows within variable drainage areas. Availability of public land will be the first criteria for identifying the location and type of BMP. Potential project locations may include areas with open spaces, whether they are within parks, large parking lots, or vacant spaces.

Regional BMPs that may be included in the EWMPs will be identified and described further in the PEIR.

4.1.2 Centralized Structural BMPs

Centralized structural BMPs are constructed structural practices intended to treat runoff from a contributing area of multiple parcels. Generally, centralized structural BMPs are installed on large public parcels or adjacent to storm drain outfalls and receiving waters. Some examples of centralized structural BMPs include the following:

- Bioinfiltration BMPs (Bioretention with underdrain, bioinfiltration, highflow biotreatment, and raised underdrain, vegetated swales, filter strips—implemented as single or multiple types)
- Constructed wetlands (aboveground and belowground)
- Treatment BMPs/Low-flow diversion
- Creek/river/floodplain/estuary restoration

4.1.3 Distributed Structural BMPs

Distributed structural BMPs are constructed structural practices intended to treat runoff close to the source and are typically implemented at a single- or few-parcel level. The following list includes common distributed BMPs that can be implemented at the parcel level:

- Site scale detention (dry/wet detention ponds, detention chambers)
- Green infrastructure/Low Impact Development (LID)
    - Biofiltration
    - Bioretention
    - Porous/permeable pavers
    - Green streets
    - Infiltration BMPs
    - Bioswales/buffer strips
    - Planter boxes
    - Rainfall harvesting (green roofs, rain barrels, and cisterns)
- Flow-Through Treatment BMPs
    - Media/cartridge filters
    - High-flow biotreatment
- Source Control Treatment BMPs
    - Catch basin inserts/screens
    - Hydrodynamic separators
    - Gross solids removal devices (GSRDs)
    - Low flow diversions

4.2 Institutional BMPs/ Non-Structural Control Measures

These are policies, actions, and activities which are intended to prevent pollutants from entering stormwater runoff, thus eliminating the source of the pollutants. Most institutional BMPs are implemented to meet Minimum Control Measure (MCM) requirements in the MS4 permit; MCMs are considered a subset of institutional BMPs. MCMs do not involve construction of facilities that physically remove pollutants, but may involve costs associated with the procurement and installation of items such as signage or spill response kits. The six categories of MCMs outlined in the MS4 permit are as follows:

- Development Construction Program
- Planning and Land Development Program
- Industrial Commercial Facilities Control Program
- Illicit Connections and Illicit Discharges Detection and Elimination Program
- Public Agency Activities Program
- Public Information and Participation Program

Nonstructural BMPs or Institutional Controls are often implemented as programs or strategies which seek to prevent and/or reduce runoff and/or pollution close to the source. Nonstructural BMPs include but are not limited to:

- Irrigation control (runoff reduction) and water-efficient landscaping
- Brake pad replacement
- Covered trash receptacles
- Replacement of lead in wheel weights, or reduction in the copper content of brake pads
- Pet waste cleanup stations
- Street sweeping
- Catch basin cleaning
- Downspout disconnect program

The MS4 permit allows Permittees to customize MCMs to address high-priority water quality goals within their watersheds. Customization can range from eliminating an MCM (with the exception of the Planning and Land Development Program requirement), proposing actions within an MCM to target specific water quality issues, and increasing or decreasing activities within an MCM (with appropriate justification).

Because the LACFCD does not have jurisdictional authority for ordinance and code enactment or enforcement, they are limited in application of MCMs for Public Information and Participation Programs.

5. Potential Environmental Impacts

The LACFCD is considering having the PEIR evaluate the following preliminary listing of potential environmental issues. The environmental issues to be addressed will be finalized after the close of the public comment period and comments on the NOP are received.

The PEIR will focus on potential effects that could result from implementation of the projects and management actions identified in each EWMP. The PEIR will assess the physical changes to the environment that would likely result from the construction and operation of EWMP projects, including direct, indirect, and cumulative impacts. Potential impacts are summarized below. The PEIR will identify mitigation measures if necessary to minimize potentially significant impacts of each EWMP. The PEIR is anticipated to evaluate, at a minimum, the following preliminary listing of environmental issues.

Aesthetics

Potential direct and indirect impacts could occur both during construction and after the proposed EWMP facilities are built and operating. Potential issues associated with aesthetics in relation to the proposed EWMP BMPs could include obstruction of high-quality or important views during either construction or operation of EWMP BMPs, impacts to local character, or construction of facilities incompatible with local recreation facilities or open-space areas. The PEIR will identify the potential visible physical changes to the natural and man-made environment, including the addition of new BMPs into the viewshed (temporary and permanent) and the removal of other components from the view (i.e., blocking of views). The PEIR will also identify the potential effects of the proposed EWMP BMPs on the existing light, glare, shadow, and shade environments.

Air Quality

Construction and operation of EWMP projects could cause air emissions. Air emissions could result from construction equipment exhaust, ground disturbance during construction, material hauling, construction employee-commute travel, vehicle operational maintenance trips, and vehicle trips associated with any increases in employment. Operation of some of the proposed EWMP facilities may potentially generate emissions associated with energy use. The PEIR will evaluate the effects of construction and operational activities on air quality and also will develop mitigation measures if necessary to reduce potential impacts.

Biological Resources

Implementation of the EWMP projects could occur within existing sensitive habitats. The projects could result in changes to wildlife habitat, disruption of natural movement corridors, fragmentation or isolation of wildlife habitats, and disturbance of sensitive species during construction or operation. In particular, reduced flows in downstream segments resulting from runoff retention could alter riparian and aquatic habitats. The PEIR will evaluate the potential for such facilities to impact biological resources and will also discuss local ordinances and state and federal regulations governing biological resources.

Cultural Resources

The proposed EWMP BMPs would require construction of structural BMPs which could be above and/or below ground. Issues regarding cultural resources during construction activities could include disturbance of known or unknown archeological sites, paleontological resources, and/or human remains where groundbreaking activities occur as well as disturbance or alteration of structures with historical importance. The PEIR will assess the potential effects of the proposed EWMP BMPs on cultural resources, including archaeological, paleontological, and Native American resources. Mitigation measures will be identified if necessary to reduce the level of impact where possible.

Geology, Soils, and Seismicity

Southern Los Angeles County is a seismically active region. The proposed EWMP BMPs would require construction of structural BMPs that could be subject to potential seismic and geologic hazards, including

ground shaking, liquefaction, soil stability conditions, soil erosion rates, expansive soils, and landslides. Policies provided in the County's General Plan and applicable standard County requirements will be evaluated as to their effect of mitigating or avoiding any potentially significant effects. The PEIR will identify mitigation measures if necessary to reduce potential adverse effects to proposed facilities.

Greenhouse Gas Emissions

Implementation of proposed EWMP BMPs could result in the generation of greenhouse gas (GHG) emissions associated with construction and operations. The PEIR will estimate construction-related emissions and long-term operational emissions, including total CO_2-equivalent emissions for evaluating the effects of GHGs. The PEIR will examine the project's effects on global climate change and evaluate consistency of the project with the State's GHG emissions reduction goals.

Hazards and Hazardous Materials

Excavation during construction of proposed EWMP BMPs could uncover contaminated soils or hazardous substances that pose a substantial hazard to human health or the environment. Construction activities could result in the release of hazardous materials. Potential hazards will be evaluated and assessed by reviewing the data collected by the California State Water Resources Control Board (SWRCB) GeoTracker and the California Department of Toxic Substances Control (DTSC) Envirostor databases. The policies provided in the County's General Plan and any standard County requirements will be evaluated as to their effect of mitigating or avoiding any potentially significant effects. The PEIR will evaluate the potential for EWMP projects to result in the release of hazardous materials. Mitigation measures will be proposed if necessary to reduce any significant effects of the project that may involve hazardous material issues to ensure that any hazards encountered during construction would be handled in accordance with applicable regulations.

Hydrology and Water Quality

Implementation of the proposed EWMP BMPs may change local drainage patterns at construction sites, which could affect the volume, quality, and rates of surface runoff that in turn could affect local surface water resources. Considered cumulatively, the proposed EWMP facilities may also change regional drainage patterns, which could affect the hydrology, hydraulics, and/or water quality of streams, rivers, and other receiving waters. The PEIR will identify relevant federal, state, and local regulations and agencies, including provisions of the federal Clean Water Act, the state Porter-Cologne Water Quality Control Act, and the permitting and regulatory authority of the RWQCB. The PEIR will identify stormwater quality protection measures required during construction and operation of proposed facilities. The PEIR also will evaluate potential impacts to flood control capacity and develop mitigation strategies if necessary to avoid significant impacts.

Implementation of the proposed EWMP BMPs would likely result in increased infiltration and recharge in various locations throughout the EWMP watersheds. Such activities could affect local groundwater levels and water quality. The PEIR will evaluate potential effects of increased storm water recharge and will identify mitigation measures if necessary to ensure that potentially necessary significant impacts are reduced or avoided.

Land Use and Recreation

Implementation of the proposed EWMP BMPs would include implementation of structural BMPs throughout the EWMP watershed areas. Issues associated with land use and planning could result from construction of new BMPs from the proposed EWMP. Issues associated with these components could

include compatibility with adjacent land uses or zoning designations, consistency with relevant land use policies, and access to adjacent land during new construction or repairs of existing flood control or recharge facilities. The PEIR will evaluate the compatibility of the proposed EWMP BMPs with existing and planned land uses within the EWMP watershed areas.

Noise

Implementation of the proposed EWMP BMPs would require implementation of structural BMPs that would potentially generate noise and vibration. Construction activities that could be a significant source of noise and vibrations include trucking operations, use of heavy construction equipment (e.g., graders, cranes, and frontend loaders), pile driving activities, and blasting. Fixed sources of noise may include pumps and motors at pump stations. Construction noise and vibration impacts related to the proposed EWMP facilities will be evaluated at a program level. The PEIR will recommend mitigation strategies to ensure that proposed EWMP projects implemented by local agencies comply with local noise policies and ordinances.

Population and Housing/Growth Inducement

Implementation of the proposed EWMP BMPs will include implementation of structural and nonstructural BMPs that would improve water quality and increase stormwater infiltration. The proposed EWMP BMPs are unlikely to affect population and housing or induce growth. In addition, construction of the proposed EWMP BMPs or alteration of current facilities is not anticipated to lead to displacement or interruption of operation of businesses during construction. The PEIR will, however, identify current population and employment projections and identify local planning jurisdictions with the authority to approve growth and mitigate secondary effects of growth.

Public Services

Implementation of the proposed EWMP BMPs is unlikely to affect demand for public services, or, by itself, to require new or expanded facilities for public service providers. Potential issues related to the construction and operation of the proposed EWMP facilities include disruption or impediment of fire, police, or other emergency services to areas/facilities where proposed EWMP facilities would be constructed or operated. However, the PEIR will assess the potential for the proposed EWMP BMPs to affect police and fire protection services, schools, parks, and recreational facilities, such that new or expanded buildings or structures may be required that would, in turn, affect the environment.

Traffic and Transportation

Construction of the proposed EWMP BMPs could affect traffic on local roadways as a result of vehicle trips associated with hauling of material and equipment, road closures and detours, increased demand for parking to serve construction workers, and increase in traffic hazards caused by construction activities. The PEIR will evaluate the potential for additional construction vehicles, lane closures, or road closures to impact traffic and circulation. The PEIR will identify mitigation strategies to reduce any potential effects.

Utilities and Energy

Potential issues related to the construction and operation of the proposed BMPs include the disruption or impediment of service to areas where the proposed BMPs would be constructed or operated. Existing and projected regional supplies, demands, and facilities will be described along with any existing constraints, deficiencies, or service issues for the proposed EWMP BMPs. The PEIR will evaluate the project's potential to affect utilities and will identify mitigation measures to minimize the effects.

Implementation of the proposed EWMP BMPs would also result in implementation of watershed control measures that may potentially increase the amount of energy required locally to operate some of these BMPs. The PEIR will evaluate potential energy consumption associated with implementation of structural and nonstructural BMPs.

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Office of Planning and Research
1400 10th Street, Room 222
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Los Angeles Regional Water Quality Control Board
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320 West 4th Street, Suite 200
Los Angeles, CA 90013

State Water Resources Control Board
ATTN: CEQA Review
1001 I Street
Sacramento, CA 95814

US Environmental Protection Agency
Office of Water (4100T)
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Washington, D.C. 20460

California Environmental Protection Agency (CalEPA)
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Sacramento, CA 95812-2815

U.S. Army Corp of Engineers
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Los Angeles, CA 90017

California Department of Fish and Wildlife – CEQA Review
South Coast Region
3883 Ruffin Road
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California Department of Fish and Wildlife
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US Fish and Wildlife Service
Pacific Southwest (Region 8)
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Los Angeles, CA 90012

ATTN: CEQA Review
Environmental Planning Team
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Los Angeles, CA 90012-2944

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Central Basin Municipal Water District
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Commerce, CA 90040-2512

ATTN: General Manager
West Basin Municipal Water District
17140 South Avalon Boulevard, Suite 210
Carson, CA 90746-1296

ATTN: General Manager
Water Replenishment District
4040 Paramount Boulevard
Lakewood, CA, 90712

South Coast Air Quality District
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21865 Copley Drive
Diamond Bar, CA 91765

Department of Toxic Substances
ATTN: CEQA Review
9211 Oakdale Avenue
Chatsworth, CA 91311-6505

Caltrans District 7
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Los Angeles, CA 90012

Southern California Association of Governments
CEQA Intergovernmental Review
818 West 7th St, 12th floor
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ATTN: General Manager
Three Valleys Municipal Water District
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Claremont, CA 91711-2052

County of Los Angeles, Board of Supervisors, 1st District
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County of Los Angeles, Board of Supervisors, 3rd District
Attn: Zev Yaroslavsky
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County of Los Angeles, Board of Supervisors, 4th District
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500 W. Temple St, RM 822
Los Angeles, CA 90012

County of Los Angeles, Board of Supervisors, 5th District
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Attn: CEQA Review
Los Angeles County Public Health
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Baldwin Park, CA 91706

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1955 Workman Mill Road
Whittier, CA 90607-2301

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Los Angeles Dept of Water and Power
111 N. Hope Street
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ATTN: General Manager
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ATTN: General Manager
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Monrovia, CA, 91016

BALLONA CREEK

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Culver City, CA 90232-0507

Attention: Rick Valte
City of Santa Monica
Public Works Department
Civil Engineering Division
14373 4th Street, Suite 300
Santa Monica, CA 90401

BEACH CITIES

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City of Torrance
20500 Madrona Avenue
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DOMINGUEZ CHANNEL

Attn: CEQA Review
City of Lomita
Lomita City Hall
24300 Narbonne Avenue
Lomita, CA USA 90717

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City of Calabasas
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Joe Bellomo
City of Westlake Village
31200 Oak Crest Dr
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Attention: Shahram Kharaghani
City of Los Angeles Department of Public Works/Bureau of Sanitation, Watershed Protection Division
1149 S. Broadway
Los Angeles, CA 90015

Attention: Sharon Perlstein
City of West Hollywood
Department of Transportation and Public Works
8300 Santa Monica Boulevard
West Hollywood, CA 90069-6216

Attention: Gary Hildebrand
Los Angeles County Flood Control District/Department of Public Works
Watershed Management Division, 11th Floor/900 South Fremont Avenue
Alhambra, CA 91803-1331

Attn: Raul Saenz
City of Manhattan Beach
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1400 Highland Avenue
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Department of Parks and Recreation
211 N. Figueroa St. Suite 1550
Los Angeles, CA 90012

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City of Hawthorne
Hawthorne City Hall
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Attn: CEQA Review
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Attn: Frank Senteno
City of Hermosa Beach
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Hermosa Beach, CA 90254-3885

Attn: LiFan Xu
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El Segundo, CA 90245

Attn: Rob DuBoux
City of Malibu
23825 Stuart Ranch Road
Malibu, California 90265-4861

Attn: CEQA Review
California Department of Parks and Rec.
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Sacramento, CA 95814

Attn: CEQA Review
Ventura County Watershed Protection District
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MARINA DEL REY

Attention: Gail Farber
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Department of Public Works
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NORTH SANTA MONICA BAY

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Malibu, California 90265-4861

PALOS VERDES

Attn: CEQA Review
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Sanitation Districts of LA County
1955 Workman Mill Road
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Attn: Gregg Grammer
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Rolling Hills Estates , California 90274

Attn: CEQA Review
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Rolling Hills, CA 90274

Attn: Allan Rigg
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340 Palos Verdes Dr West,
Palos Verdes Estates, CA 90274

Attn: Andy Winje
City of Rancho Palos Verdes
30940 Hawthorne Blvd,
Rancho Palos Verdes, CA 90275

Attn: CEQA Review
LA County Parks
433 S Vermont Ave Fl 4
Los Angeles, CA 90020

Attn: CEQA Review
Heal the Bay
1444 9th Street
Santa Monica, CA 90401

RIO HONDO / SAN GABRIEL

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San Gabriel Valley Council of Governments
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Attn: Vanessa Hevener
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Metro Gold Line Foothill Extension Construction Authority
406 East Huntington Drive, Suite 202
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232 West Sierra Madre Boulevard
Sierra Madre, CA 91024

Attn: Rafael Casillas
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Duarte, CA
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SANTA MONICA BAY

Attn: Stephanie Katsouleas
City of El Segundo
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El Segundo, CA 90245

UPPER LOS ANGELES RIVER

Attn: David Dolphin
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Attn: Steve Freeland
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Willdan Engineering
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Burbank, CA 91502

Attn: Edward Hitti
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1327 Foothill Blvd
La Cañada Flintridge, CA 91011

Attn: Shin Furukawa
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Office of the City Manager
1414 Mission Street
South Pasadena, CA 91030

Attn: CEQA Review
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San Fernando City Hall, 117 Macneil Street, San Fernando, CA 91340

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9701 Las Tunas Drive
Temple City, CA 91780-2249

Attn: John Hunter
John L Hunter and Associates
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Buena Park, CA

Attn: Maurice Oillataguerre
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633 East Broadway, Room 209
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Attn: Daren Grilley
City of San Gabriel
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San Gabriel, CA 91778-0130

UPPER SAN GABRIEL RIVER

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15625 Stafford St
City of Industry, CA 91744

UPPER SANTA CLARITA RIVER

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City of Baldwin Park
14403 East Pacific Avenue
Baldwin Park, California 91706

Attn: Vivian Castro
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Covina City Hall
125 E. College Street
Covina, CA 91723-2199

Attn: CEQA Review
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Attn: David A. Davies
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Attn: John Di Mario
La Puente City Hall
City of La Puente
15900 Main Street
La Puente CA 91744

Appendix B

Scoping Report and Comment Letters

ESA

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
ENHANCED WATERSHED MANAGEMENT PROGRAMS PROGRAM EIR

Scoping Report

Introduction and EWMP Overview

The Los Angeles County Flood Control District (LACFCD) is the Lead Agency for the proposed Enhanced Watershed Management Programs (EWMPs) Environmental Impact Report. The Los Angeles County Flood Control Act was adopted by the State Legislature in 1915 and established the LACFCD and empowered it to provide flood risk management, water conservation, and recreation and aesthetic enhancement within its boundaries. The LACFCD, the County of Los Angeles, and 84 incorporated cities within Los Angeles County (collectively referred to as Permittees) are covered under a Municipal Separate Storm Sewer System (MS4) Permit (Order No. R4-2012-0175; National Pollutant Discharge Elimination System [NPDES] Permit No. CAS004001) for the discharge of urban runoff to waters of the United States. The purpose of the MS4 Permit is to ensure Permittees are not causing or contributing to exceedances of water quality objectives or impairments of beneficial uses in the receiving waters of the Los Angeles region.

The 2012 MS4 Permit for Los Angeles County gives Permittees the option of implementing an innovative approach to MS4 Permit compliance through development of EWMPs. The LACFCD, along with participating Permittees, has opted to exercise this option and has submitted 12 separate Notices of Intent (NOIs) for the development of 12 EWMPs in their respective watershed groups to the Los Angeles Regional Water Quality Control Board (LARWQCB). The intent of the EWMP is to comprehensively evaluate opportunities for collaboration on multi-benefit regional projects that retain non-stormwater runoff and also address flood control and/or water supply within the participating Permittees' collective jurisdictional boundaries. The LARWQCB is responsible for approval of the EWMPs in compliance with the MS4 Permit. Implementation of the EMWPs would occur following approval by the LARWQCB.

The primary goals and objectives of the EWMPs are:

- To collaborate among agencies (Permittee jurisdictions) across the watershed to promote more cost-effective and multi-beneficial water quality improvement projects to comply with the MS4 Permit;
- To develop watershed-wide EWMPs that will, once implemented, remove or reduce pollutants from dry- and wet-weather urban runoff in a cost-effective manner; and
- To reduce the impact of stormwater and non-stormwater on receiving water quality.

Following the adoption of the MS4 permit by the RWQCB, Permittees in each EWMP area formed Watershed Management Groups (WMGs) to collaborate on the development of EWMPs. The proposed program includes several watershed management groups of Los Angeles County, covering the following EWMP areas: Ballona Creek, Beach Cities, Dominguez Channel, Malibu Creek, Marina del Rey, North Santa Monica Bay, Palos Verdes Peninsula, Rio Honda/San Gabriel River, Santa Monica Bay, Upper Los Angeles River, Upper San Gabriel River, and Upper Santa Clara River.

Notice of Preparation

Pursuant to Section 15082 of *CEQA Guidelines,* the lead agency is required to send a Notice of Preparation (NOP) stating that an EIR will be prepared to the State Office of Planning and Research (OPR), responsible and trustee agencies, and federal agencies involved in funding or approving the project. The NOP must provide sufficient information in order for responsible agencies to make a meaningful response. At a minimum, the NOP must include a description of the project, location of the project, and probable environmental effects of the project (*CEQA Guidelines*, Section 15082(a)(1)). Within 30 days after receiving the NOP, responsible and trustee agencies and OPR shall provide the lead agency with specific detail about the scope and content of the environmental information related to that agency's area of statutory responsibility that must be included in the draft EIR (*CEQA Guidelines*, Section 15082(b)).

A Notice of Preparation (NOP) was published by the LACFCD on August 29, 2014. The NOP was circulated to federal, state, and local agencies, as well as other interested parties, for a period of 30 days. The NOP was made available in print and electronic form, and the LACFCD accepted comments on the NOP for a 30-day period, closing on September 29, 2014. In addition, an email notification regarding the availability of the NOP was sent to over 700 interested EWMP stakeholders. Reports of email notification deliveries and bounce-backs are located in Attachment 3. A lack of comments from interested parties prompted LACFCD to extend the public comment period an additional 30 days; it ultimately closed on October 29, 2014. Additionally, the LACFCD posted a Twitter message regarding the comment period extension, and uploaded a recording of the Scoping Meeting Presentation to the project website, to augment the public outreach activities. The NOP was also made available on the project website: www.LACoH2Osheds.com. The NOP discussed the purpose of the EWMPs and their management strategies, identified the EWMP Study Areas, and provided a brief and preliminary list of environmental issue areas that could be impacted.

Table 1-1 provides a list of the commenters that sent comments on the NOP. The comment letters are located in Attachment 9.

TABLE 1-1
NOP COMMENTERS

	Date	Name	Organization
1	10/16/2014	Enrique Huerta	At-Large Stakeholder (Downey, CA)
2	10/23/2014	Enrique Huerta	At-Large Stakeholder (Downey, CA)
3	10/28/2014	George Ball	Citizen
4	10/29/2014	Jane Williams	Los Angeles County Arboretum
5	10/27/2014	Kenneth Hill	Los Angeles County Arboretum Foundation, President
6	10/23/2014	Marsha Perez	Citizen, Los Angeles County Arboretum
7	09/29/2014	Rex Frankel	Ballona Ecosystem Education Project, Director
8	10/29/2014	Rex Frankel	Ballona Ecosystem Education Project, Director
9	10/29/2014	Tom Williams	Sierra Club, Water Committee
10	10/08/2014	Elizabeth Byrne Debreu	Los Angeles Arboretum Foundation
11	09/29/2014	Dianna Watson	Department of Transportation
12	09/24/2014	Deirdre West	Metropolitan Water District

	Date	Name	Organization
13	09/25/2014	Katy Sanchez	NAHC
14	09/29/2014	Douglas Fay	Citizen
15	09/29/2014	Donna Murray	Citizen
16	09/29/2014	Joyce Dillard	Citizen
17	10/03/2014	Patricia McPherson	Grassroots Coalition
18	10/14/2014	Jane Florentinus	Citizen
19	10/29/2014	Dale Carter	Arboretum volunteer and docent
20	08/29/2014	Scott Morgan	State Clearinghouse

Scoping Meetings

Pursuant to *CEQA Guidelines* Section 15083, the LACFCD held three public scoping meetings on September 9, 10, and 15 of 2014 to receive comments on the NOP. The purpose of the meetings was to present the proposed EWMPs to the interested stakeholders and receive public input regarding the proposed scope of the PEIR analysis. Attendees were provided an opportunity to voice comments or concerns regarding potential effects of the program. The Scoping Meeting Presentation (Attachment 4), Sign-In Sheets (Attachment 5), and summary of verbal comments made at the meetings (Attachment 6) are found in this report.

The next formal opportunity for the public to comment on the proposed project will occur when the Draft PEIR is distributed for a 45-day review period, anticipated to occur between January and March of 2015.

Attachments to this Report

This Scoping Report contains documents pertinent to the scoping process. The following items are included:

Attachment 1: Notice of Preparation
Attachment 2: Notice of Completion
Attachment 3: Summary of NOP Availability Emails
Attachment 4: Scoping Meeting Presentation
Attachment 5: Scoping Meeting Sign-In Sheets
Attachment 6: Scoping Meeting Public Comments
Attachment 7: State Clearinghouse Distribution of NOP
Attachment 8: Comment Period Extension Letter
Attachment 9: Public Comment Letters Received

Attachment 1

Notice of Preparation

Notice of Preparation

Date	August 29, 2014
To:	California Office of Planning and Research, Responsible and Trustee Agencies and Interested Parties
Subject:	Notice of Preparation of a Draft Program Environmental Impact Report
Project:	Enhanced Watershed Management Programs
Lead Agency:	Los Angeles County Flood Control District
Review Period:	August 29, 2014 through September 29, 2014

The Los Angeles County Flood Control District (LACFCD) will be the Lead Agency and will prepare a Program Environmental Impact Report (PEIR) for the project identified in this notice. We need to know the views of you or your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. This Notice of Preparation (NOP) has been prepared to notify agencies and interested parties that the LACFCD is beginning preparation of a PEIR pursuant to the California Environmental Quality Act (CEQA) for its proposed Enhanced Watershed Management Programs (EWMPs, or "program").

The Los Angeles County Flood Control Act was adopted by the State Legislature in 1915 and established the LACFCD and empowered it to provide flood risk management, water conservation, and recreation and aesthetic enhancement within its boundaries. The LACFCD is governed as a separate entity by the Board of Supervisors of the County of Los Angeles and is operated by the County's Department of Public Works. The LACFCD encompasses more than 3,000 square miles, 85 cities, and approximately 2.1 million land parcels. The LACFCD, the County of Los Angeles, and 84 incorporated cities within Los Angeles County (collectively referred to as Permittees) are covered under a Municipal Separate Storm Sewer System (MS4) Permit (Order No. R4-2012-0175; National Pollutant Discharge Elimination System [NPDES] Permit No. CAS004001) for the discharge of urban runoff to waters of the United States. The purpose of the MS4 Permit is to ensure Permittees are not causing or contributing to exceedances of water quality objectives or impairments of beneficial uses in the receiving waters of the Los Angeles region.

The 2012 MS4 Permit for Los Angeles County gives Permittees the option of implementing an innovative approach to Permit compliance through development of EWMPs. The LACFCD and participating Permittees have opted to exercise this option and have submitted 12 separate Notices of Intent (NOIs) for the development of 12 EWMPs in their respective watershed groups to the Los Angeles Regional Water Quality Control Board (LARWQCB). The LARWQCB is responsible for approval of the EWMPs in compliance with the MS4 Permit. Implementation of the EMWPs would occur following approval by the LARWQCB. The preparation of the 12 separate EWMPs will be a collective effort among the LACFCD and the applicable agencies in each respective EWMP. The 12 EWMPs will vary for each watershed group, but will generally provide the opportunity for Permittees to customize their stormwater programs to achieve compliance with applicable receiving water limitations (RWLs) and water-quality-based effluent limits (WQBELs) in accordance with the MS4 Permit through implementation of stormwater best management practices (BMPs) or watershed control measures. BMPs vary in function and type, with each BMP providing unique design characteristics and benefits from implementation. The overarching goal of BMPs in the EWMP is to reduce the impact of stormwater and non-stormwater on receiving water

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quality and address the water quality priorities as defined by the MS4 Permit. The development of each EWMP will involve the evaluation and selection of multiple BMP types, including nonstructural (institutional) and distributed, centralized, and regional structural watershed control measures, that will be implemented to meet compliance goals and strategies under the 2012 MS4 Permit.

The LACFCD, as a regional agency charged with conserving stormwater for use in our local water supply, has a vested interest in increasing opportunities for stormwater capture and groundwater recharge. The LACFCD has flood control infrastructure in each of the EWMP areas and is participating in all 12 EWMPs. The LACFCD will be working with the applicable Permittees and other stakeholders in all 12 EWMP watersheds to develop the EWMPs, which will be implemented by the Permittees that have jurisdiction within each EWMP area. The Permittees implementing the projects defined in the EWMPs, or "implementing agencies," will vary between EWMPs and individual projects. The LACFCD will be an implementing agency only on those projects for which it has been identified in an EWMP as a responsible implementing party.

Project Location: The proposed program would be located in several watersheds of Los Angeles County and would include the following enhanced watershed management groups: Ballona Creek, Beach Cities, Dominguez Channel, Malibu Creek, Marina del Rey, North Santa Monica Bay Coastal Watersheds (NSMBCW), Palos Verdes Peninsula, Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG), Santa Monica Bay, Upper Los Angeles River, Upper San Gabriel River, and Upper Santa Clara River. The project area is indicated in Figure 1.

Broad Range of Potential Benefits from EWMPs: If implemented, the proposed EWMP-generated benefits would include:

- Improved Water Quality
- Reduction in Impairment of Water Bodies for Designated Beneficial Uses
- Promotion of Water Conservation and Supply
- Enhanced Recreation Opportunities
- Support for Public Education Opportunities
- Improved Local Aesthetics
- Management of Flood Risks

Public Comments: The LACFCD is soliciting the views of interested persons and agencies as to the scope and content of the environmental information to be evaluated in the PEIR. In accordance with CEQA, agencies are requested to review the project description in this NOP and provide their comments on environmental issues related to the statutory responsibilities of the agency. The PEIR will be used by LACFCD's governing Board, the Los Angeles County Board of Supervisors, when considering approval of the proposed EWMPs as well as for any related discretionary approvals.

Due to the time limits mandated by state law, all comments to the NOP are due no later than September 29, 2014. Please send your comments to the address shown below. Include a return address or email address and a contact name in your agency with your comments.

Gregg BeGell, P.E.
County of Los Angeles Department of Public Works
Project Management Division II
900 South Fremont Avenue, 5th Floor
Alhambra, CA 91803
(626) 300-3298
gbegell@dpw.lacounty.gov

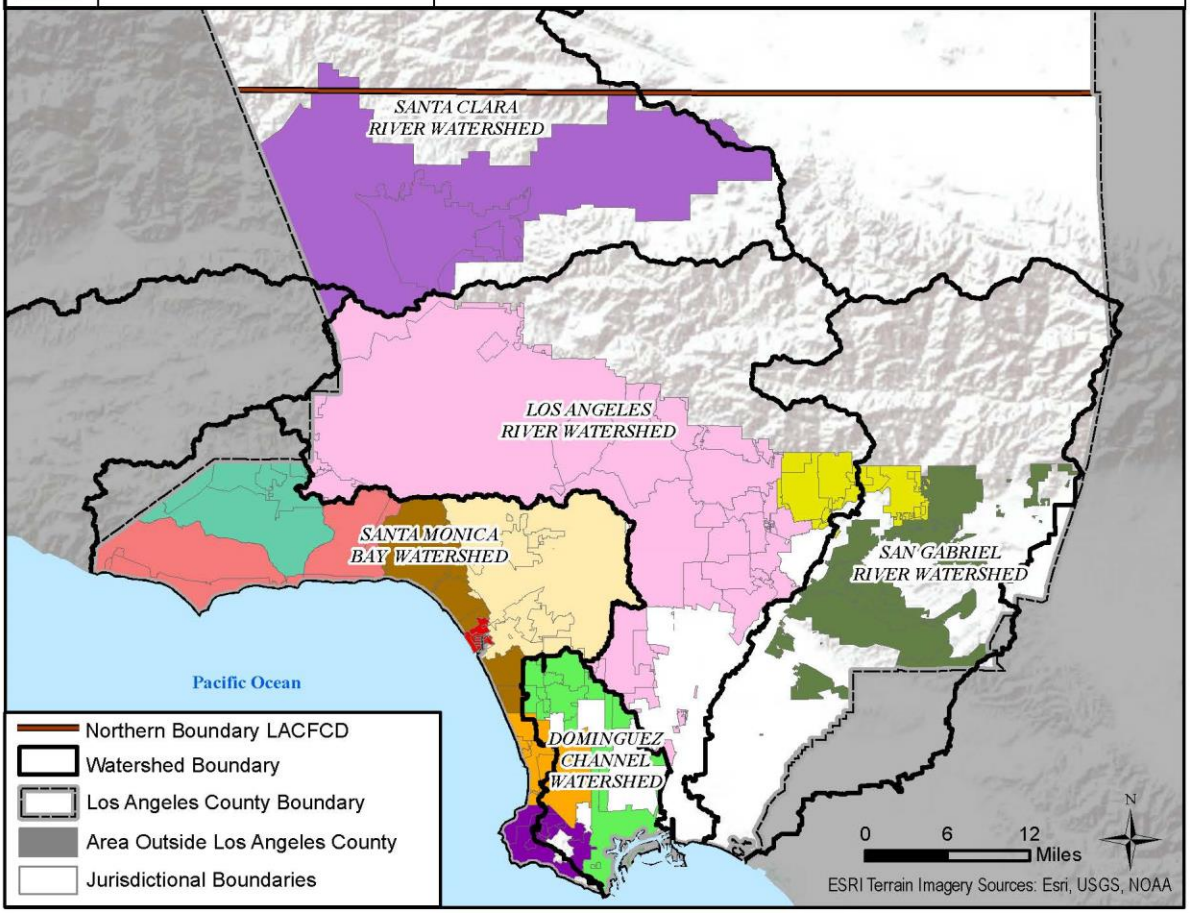
This NOP and other PEIR information, as it becomes available, can be accessed at:
www.LACoH2Osheds.com

Scoping Meetings: Three scoping meetings will be held to receive public comments regarding the scope and content of the PEIR. The scoping meetings will include a brief presentation providing an overview of the proposed program and the CEQA process. After the presentation, oral comments will be accepted. Written comment forms will be supplied for those who wish to submit comments in writing at the scoping meeting. Written comments also may be submitted anytime during the NOP review period. The scoping meetings will be held as follows:

DATE:	Tuesday, September 9, 2014
TIME:	6:00 P.M.
LOCATION:	Chace Park Community Room TBD 13650 Mindanao Way Marina del Rey, CA 90292
DATE:	Wednesday, September 10, 2014
TIME:	6:00 P.M.
LOCATION:	County of Los Angeles Department of Public Works 900 South Fremont Avenue First Floor Conference Room C Alhambra, CA 91803
DATE:	Monday, September 15, 2014
TIME:	6:30 P.M.
LOCATION:	K Dalton Room Community Center 119 W Palm Ave Monrovia, CA 91016

Figure 1: Overview EWMP Groups

Group Name	Cities/Permittees Involved
Ballona Creek	Beverly Hills, Culver City, Inglewood, Los Angeles, Santa Monica, West Hollywood, LA County, LACFCD
Beach Cities Watershed Management Group	Hermosa Beach, Manhattan Beach, Redondo Beach, Torrance, LACFCD
Dominguez Channel Watershed Management Group	El Segundo, Hawthorne, Inglewood, Los Angeles, Lomita, LA County, LACFCD
Malibu Creek Watershed	Agoura Hills, Calabasas, Hidden Hills, Westlake Village, LA County, LACFCD
Marina del Rey	Culver City, Los Angeles, LA County, LACFCD
North Santa Monica Bay Coastal Watersheds	LA County, Malibu, LACFCD
Palos Verdes Peninsula EWMP Agencies	Palos Verdes Estates, Rancho Palos Verdes, Rolling Hills Estates, LA County, LACFCD
Rio Hondo/San Gabriel River Water Quality Group	Arcadia, Azusa, Bradbury, Duarte, Monrovia, LA County, Sierra Madre, LACFCD
Santa Monica Bay Watershed Jurisdictions 2 & 3	Los Angeles, El Segundo, Santa Monica, LA County, LACFCD
Upper Los Angeles River Watershed	Alhambra, Burbank, Calabasas, Glendale, Hidden Hills, La Canada Flintridge, Los Angeles, Montebello, Monterey Park, Pasadena, Rosemead, San Gabriel, San Marino, South Pasadena, Temple City, LA County, LACFCD
Upper San Gabriel River	Baldwin Park, Covina, Glendora, Industry, La Puente, LA County, LACFCD
Upper Santa Clara River Watershed	LA County, Santa Clarita, LACFCD



1. Introduction

The LACFCD along with other applicable Permittees have submitted NOIs to the LARWQCB to develop EWMPs for 12 watershed groups, in accordance with the 2012 MS4 Permit, Order No. R4-2012-0175. The LARWQCB is responsible for approval of the final EWMPs in compliance with the MS4 Permit. Implementation of the EMWPs would occur following approval of the final plan. To begin preparing the EWMPs, the Permittees collaborated on, developed, and submitted Draft Work Plans to the LARWQCB, outlining the proposed approach to preparation of each of their respective EWMPs. The primary approach to each of the EWMPs, as identified in the Draft Work Plans, includes identifying community-friendly, cost-effective methods of reducing urban runoff pollution and incorporating distributed and centralized structural and nonstructural watershed control measures for a multi-pollutant, multi-benefit approach. The EWMPs will also evaluate multi-benefit regional projects that will retain (through infiltration or capture and reuse) the stormwater quality design volume (85^{th} percentile storm for 24 hours) for the runoff from the contributing drainage area.

The proposed project includes the potential nonstructural (institutional) and distributed, centralized, and regional structural watershed control measures described in the Draft Work Plans and detailed in the EWMPs currently under preparation. These measures will be evaluated in the PEIR. The PEIR will provide a program-level assessment of the overall permit compliance effort, focusing particularly on the structural watershed control measures proposed in each of the 12 EWMP areas.

1.1 Project Location

The proposed program includes several watershed management groups of Los Angeles County, which include the following EWMP groups: Ballona Creek, Beach Cities, Dominguez Channel, Malibu Creek, Marina del Rey, North Santa Monica Bay Coastal Watersheds (NSMBCW), Palos Verdes Peninsula, Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG), Santa Monica Bay, Upper Los Angeles River, Upper San Gabriel River, and Upper Santa Clara River. The geographic scope covered by each of these 12 EWMPs is described in further detail below and shown in Figure 1.

- Ballona Creek – The Ballona Creek EWMP area covers the Ballona Creek watershed. The Permittees within this EWMP are the Cities of Beverly Hills, West Hollywood, Los Angeles, Inglewood, Culver City, Santa Monica, and West Hollywood; County of Los Angeles; and LACFCD.

- Beach Cities – The Beach Cities EWMP area covers portions of three watersheds: Santa Monica Bay Watershed Jurisdictional Group (SMB JG) 5 & 6, Dominguez Channel Watershed, and Machado Lake Watershed. The Permittees within this EWMP are the Cities of Redondo Beach, Manhattan Beach, Hermosa Beach, and Torrance; and the LACFCD.

- Dominguez Channel – The Dominguez Channel EWMP area covers portions of three watersheds: Dominguez Channel Watershed, the Machado Lake Watershed, and the Los Angeles/Long Beach Harbors Watershed. The Permittees within this EWMP are the Cities of El Segundo, Hawthorne, Inglewood, Lomita, and Los Angeles; County of Los Angeles; and the LACFCD.

- Malibu Creek – The Malibu Creek Watershed (MCW) EWMP area covers the majority of the MCW. The Permittees within this EWMP are the Cities of Agoura Hills, Calabasas, Hidden Hills, , and Westlake Village; County of Los Angeles; and the LACFCD.

- Marina del Rey – The Marina del Rey EWMP area covers the Marina del Rey Watershed. The Permittees within this EWMP are the Cities of Los Angeles and Culver City; County of Los Angeles; and LACFCD.

- North Santa Monica Bay – The NSMBCW EWMP area covers the SMB JG 1, SMB JG 4, and a portion of Malibu Creek within the City of Malibu's borders. The Permittees within this EWMP are the City of Malibu; County of Los Angeles; and LACFCD.

- Palos Verdes Peninsula – The Palos Verdes Peninsula watershed management area covers most of the SMB JG7, the Los Angeles Harbor subwatershed, and the Machado Lake subwatershed. The Permittees within this EWMP are the Cities of Rancho Palos Verdes, Palos Verdes Estates, and Rolling Hills Estates; County of Los Angeles; and LACFCD.

- Rio Hondo/San Gabriel River – The RH/SGRWQG EWMP area covers portions of the Los Angeles and San Gabriel River watersheds. The Permittees within this EWMP are the Cities of Arcadia, Azusa, Bradbury, Duarte, Monrovia, and Sierra Madre; County of Los Angeles; and LACFCD.

- Santa Monica Bay – The Santa Monica Bay EWMP area covers the central region of the Santa Monica Bay Watershed (SMB JG2 and SMB JG3) and includes the urbanized Dockweiler and Santa Monica subwatersheds, as well as natural open space located in the Castle Rock, Pulga Canyon, Temescal Canyon, and Santa Monica Canyon subwatersheds. The Permittees within this EWMP include the Cities of Los Angeles, Santa Monica, and El Segundo; County of Los Angeles; and LACFCD.

- Upper Los Angeles River – The Upper Los Angeles River EWMP area covers the upper reaches of the Los Angeles River Watershed. The Permittees within this EWMP are the Cities of Alhambra, Burbank, Calabasas, Glendale, Hidden Hills, La Cañada Flintridge, Los Angeles, Montebello, Monterey Park, Pasadena, Rosemead, San Gabriel, San Marino, South Pasadena, and Temple City; County of Los Angeles; and LACFCD.

- Upper San Gabriel River – The Upper San Gabriel River EWMP area covers portions of the San Gabriel River Watershed. The Permittees within this EWMP are the Cities of Baldwin Park, Covina, Glendora, Industry, and La Puente; County of Los Angeles; and LACFCD.

- Upper Santa Clara River – The Upper Santa Clara River EWMP area covers the Upper Santa Clara River Watershed. The Permittees within this EWMP are the City of Santa Clarita; County of Los Angeles; and LACFCD.

2. Background

2.1 Stormwater/Water Quality

MS4 discharges consist of stormwater and non-stormwater generated from municipal land uses that are ultimately discharged into surface waters throughout the region. The MS4 system includes curbs and gutters, man-made channels, catch basins, and storm drains throughout the Los Angeles region. Discharges may adversely affect receiving surface water quality with pollutants such as bacteria, nutrients (nitrogen and phosphorus), aluminum, copper, lead, zinc, diazinon, and cyanide. Aquatic toxicity, particularly during wet weather, is also a concern. Stormwater and non-stormwater discharges of debris and trash are also a pervasive water quality problem in the Los Angeles region. Pollutants in stormwater and non-stormwater may have damaging effects on both human health and aquatic ecosystems.

Water quality assessments conducted by the LARWQCB have identified impairment of beneficial uses of water bodies in the Los Angeles region possibly caused or contributed to by pollutant loading from municipal stormwater and non-stormwater discharges. The MS4 Permit described below is designed to reduce pollutant loads into local surface waters.

2.2 Total Maximum Daily Loads

The federal Clean Water Act (CWA), Section 303(d), requires states to identify waters that do not meet water quality standards despite the treatment by pollution-control technology. States are required not only to identify these "water quality limited segments" but also to prioritize such waters for the purpose of developing Total Maximum Daily Loads (TMDLs). A TMDL is defined as the "sum of the individual waste load allocations (WLAs) for point sources and load allocations for nonpoint sources and natural background" (40 CFR 130.2), such that the capacity of the water body to assimilate constituent loads (the loading capacity) is not exceeded. A TMDL represents an amount of pollution that can be released into a specific water body without causing a decline in water quality and impairment of beneficial uses. The TMDL also allocates the loads among current and future pollutant sources to the water body and forms the basis for WQBELs and RWLs assigned in NPDES permits. LARWQCB and United States Environmental Protection Agency (USEPA) have established 33 TMDLs that identify Los Angeles County MS4 discharges as one of the pollutant sources causing or contributing to these water quality impairments.

2.3 MS4 Permit

On November 8, 2012, the LARWQCB adopted the fourth NPDES MS4 Permit (Order No. R4-2012-0175) for discharges from the MS4 within the coastal watersheds of Los Angeles County. The MS4 Permit became effective on December 28, 2012. The 2012 MS4 Permit establishes the waste discharge requirement for stormwater and non-stormwater discharges within the watersheds of Los Angeles County. The MS4 Permit identifies conditions, requirements, and programs that municipalities must comply with to protect regional water resources from adverse impacts associated with pollutants in stormwater and urban runoff. The MS4 Permit contains effluent limitations, RWLs, Minimum Control Measures (MCMs), TMDL provisions, and outlines the process for developing watershed management programs, including the EWMP.

The 2012 MS4 Permit includes provisions that allow Permittees to voluntarily choose to implement an EWMP to achieve permit compliance with RWLs. The intent of the EWMP is to comprehensively evaluate opportunities, within the participating Permittees' collective jurisdictional boundaries, for collaboration among Permittees and other partners on multi-benefit regional projects that, wherever feasible, retain non-stormwater runoff and also address flood control and/or water supply. Twelve EWMP groups have formed to implement a collaborative approach to meeting the requirements of the 2012 MS4 Permit.

3. Enhanced Watershed Management Plans

The MS4 Permittees listed in Figure 1 submitted 12 NOIs for the development of 12 EWMPs to the LARWQCB. The 12 NOIs were approved by the LARWQCB. The 12 EWMPs being developed in Los Angeles County for the applicable watersheds have been a collaborative effort by the various EWMP agencies.

The EWMPs provide for their respective areas a comprehensive stormwater management plan that optimizes the stormwater and financial resources under the stewardship of the EWMP groups. The EWMPs include multi-benefit stormwater management projects that may also provide environmental, aesthetic, recreational, water supply, and/or other community enhancements in a cost-effective manner.

To begin preparing the EWMPs, the Permittees collaborated on, developed, and submitted Draft Work Plans to the LARWQCB, outlining the proposed approach to preparation of each of their respective EWMPs. The EWMP Work Plans establish the basis for the EWMPs. The EWMP Draft Work Plans describe the path that MS4 Permittees propose to complete the Watershed Management Program requirements of the 2012 MS4 Permit.

In accordance with the provisions of the MS4 permit, the work plans describe the following steps to EWMP development:

1. Identification of water quality priorities, including evaluation of existing water quality conditions, classification of pollutants, assessment of known and suspected pollutant sources in the watershed, and prioritization of water quality issues in the watershed

2. Characterization of existing and potential control measures within the watershed

3. Addressing the approach to incorporate reasonable assurance analysis (RAA) in the optimization of watershed control measures

The LARWQCB is responsible for approval or denial of the EWMPs in compliance with the MS4 Permit. Implementation of the EMWPs would occur following approval by the LARWQCB.

4. EWMP Watershed Control Measures

The MS4 Permit requires Permittees to identify strategies, control measures, and BMPs that will be implemented. Improvements to water quality will be achieved through implementation of watershed control measures that consist of both structural and nonstructural BMPs. BMPs vary in function and type, with each BMP providing unique design characteristics and benefits from implementation. Opportunities for BMP implementation are driven by locations where BMPs are feasible/desirable. The overarching goal of BMPs in the EWMPs is to reduce the impact of stormwater and non-stormwater on receiving water quality and to address water conservation and the water quality priorities. The development of the

EWMPs will involve the evaluation and selection of multiple BMP types, as described in the following pages.

4.1 Structural BMPs

Structural BMPs involve the construction of a physical control measure to alter the hydrology and/or water quality of incoming stormwater or non-stormwater. The three major functions for structural BMPs are infiltration, water quality treatment, and storage, as follows:

- Infiltration – Runoff is directed to percolate into the underlying soils. Infiltration generally reduces the volume of runoff and increases groundwater recharge.
- Water quality treatment – Pollutants are removed through various unit processes, including filtration, settling, sedimentation, sorption, straining, and biological or chemical transformations.
- Storage – Runoff is captured, stored (detained), and slowly released into downstream waters. Storage can reduce the peak flow rate from a site, but does not directly reduce runoff volume.

There are three categories of structural BMPs—regional, centralized, and distributed; they are defined by the runoff area treated by the BMP and the required retention volume in accordance with the Permit. Structural BMPs fall under a variety of subcategories that correspond to their function and water quality benefit. Each of these three categories is described below.

4.1.1 Regional Structural BMPs

"Regional EWMP projects" are defined by the MS4 Permit as multi-benefit regional projects that, wherever feasible, retain all non-stormwater runoff and all stormwater runoff from the 85th percentile, 24-hour storm event for the contributing drainage area, while also achieving other benefits such as flood control and/or water supply. Examples of regional structural BMPs include:

- Infiltration BMPs
  - Surface Infiltration BMPs (Infiltration Basins, Infiltration Trenches, Infiltration Galleries, and Bioretention-implemented as single or multiple types)
  - Multi-Directional Infiltration BMPs (Dry Wells, Hybrid Bioretention, and Dry Wells)
- Detention Basins (promote settling out of larger particles)
- Capture and Use BMPs (underground cisterns, storage, and use as irrigation)

Regional BMPs include infiltration facilities that promote groundwater recharge and detention facilities that encourage settling of larger particles in stormwater flows. Infiltration and detention regional BMPs can be either constructed as open-surface basins or subsurface galleries. Capture and Use BMPs collect and use stormwater where applicable for purposes such as irrigation. All of these BMP types must retain the required design storm volume without release into the MS4 or receiving waters.

Opportunities for Regional BMPs will be identified and evaluated within and across subwatersheds, with focus on the multi-benefit potential for capture and reuse of wet-weather flows within variable drainage areas. Availability of public land will be the first criteria for identifying the location and type of BMP. Potential project locations may include areas with open spaces, whether they are within parks, large parking lots, or vacant spaces.

Regional BMPs that may be included in the EWMPs will be identified and described further in the PEIR.

4.1.2 Centralized Structural BMPs

Centralized structural BMPs are constructed structural practices intended to treat runoff from a contributing area of multiple parcels. Generally, centralized structural BMPs are installed on large public parcels or adjacent to storm drain outfalls and receiving waters. Some examples of centralized structural BMPs include the following:

- Bioinfiltration BMPs (Bioretention with underdrain, bioinfiltration, highflow biotreatment, and raised underdrain, vegetated swales, filter strips—implemented as single or multiple types)
- Constructed wetlands (aboveground and belowground)
- Treatment BMPs/Low-flow diversion
- Creek/river/floodplain/estuary restoration

4.1.3 Distributed Structural BMPs

Distributed structural BMPs are constructed structural practices intended to treat runoff close to the source and are typically implemented at a single- or few-parcel level. The following list includes common distributed BMPs that can be implemented at the parcel level:

- Site scale detention (dry/wet detention ponds, detention chambers)
- Green infrastructure/Low Impact Development (LID)
    - Biofiltration
    - Bioretention
    - Porous/permeable pavers
    - Green streets
    - Infiltration BMPs
    - Bioswales/buffer strips
    - Planter boxes
    - Rainfall harvesting (green roofs, rain barrels, and cisterns)
- Flow-Through Treatment BMPs
    - Media/cartridge filters
    - High-flow biotreatment
- Source Control Treatment BMPs
    - Catch basin inserts/screens
    - Hydrodynamic separators
    - Gross solids removal devices (GSRDs)
    - Low flow diversions

4.2 Institutional BMPs/ Non-Structural Control Measures

These are policies, actions, and activities which are intended to prevent pollutants from entering stormwater runoff, thus eliminating the source of the pollutants. Most institutional BMPs are implemented to meet Minimum Control Measure (MCM) requirements in the MS4 permit; MCMs are considered a subset of institutional BMPs. MCMs do not involve construction of facilities that physically remove pollutants, but may involve costs associated with the procurement and installation of items such as signage or spill response kits. The six categories of MCMs outlined in the MS4 permit are as follows:

- Development Construction Program
- Planning and Land Development Program
- Industrial Commercial Facilities Control Program
- Illicit Connections and Illicit Discharges Detection and Elimination Program
- Public Agency Activities Program
- Public Information and Participation Program

Nonstructural BMPs or Institutional Controls are often implemented as programs or strategies which seek to prevent and/or reduce runoff and/or pollution close to the source. Nonstructural BMPs include but are not limited to:

- Irrigation control (runoff reduction) and water-efficient landscaping
- Brake pad replacement
- Covered trash receptacles
- Replacement of lead in wheel weights, or reduction in the copper content of brake pads
- Pet waste cleanup stations
- Street sweeping
- Catch basin cleaning
- Downspout disconnect program

The MS4 permit allows Permittees to customize MCMs to address high-priority water quality goals within their watersheds. Customization can range from eliminating an MCM (with the exception of the Planning and Land Development Program requirement), proposing actions within an MCM to target specific water quality issues, and increasing or decreasing activities within an MCM (with appropriate justification).

Because the LACFCD does not have jurisdictional authority for ordinance and code enactment or enforcement, they are limited in application of MCMs for Public Information and Participation Programs.

5. Potential Environmental Impacts

The LACFCD is considering having the PEIR evaluate the following preliminary listing of potential environmental issues. The environmental issues to be addressed will be finalized after the close of the public comment period and comments on the NOP are received.

The PEIR will focus on potential effects that could result from implementation of the projects and management actions identified in each EWMP. The PEIR will assess the physical changes to the environment that would likely result from the construction and operation of EWMP projects, including direct, indirect, and cumulative impacts. Potential impacts are summarized below. The PEIR will identify mitigation measures if necessary to minimize potentially significant impacts of each EWMP. The PEIR is anticipated to evaluate, at a minimum, the following preliminary listing of environmental issues.

Aesthetics

Potential direct and indirect impacts could occur both during construction and after the proposed EWMP facilities are built and operating. Potential issues associated with aesthetics in relation to the proposed EWMP BMPs could include obstruction of high-quality or important views during either construction or operation of EWMP BMPs, impacts to local character, or construction of facilities incompatible with local recreation facilities or open-space areas. The PEIR will identify the potential visible physical changes to the natural and man-made environment, including the addition of new BMPs into the viewshed (temporary and permanent) and the removal of other components from the view (i.e., blocking of views). The PEIR will also identify the potential effects of the proposed EWMP BMPs on the existing light, glare, shadow, and shade environments.

Air Quality

Construction and operation of EWMP projects could cause air emissions. Air emissions could result from construction equipment exhaust, ground disturbance during construction, material hauling, construction employee-commute travel, vehicle operational maintenance trips, and vehicle trips associated with any increases in employment. Operation of some of the proposed EWMP facilities may potentially generate emissions associated with energy use. The PEIR will evaluate the effects of construction and operational activities on air quality and also will develop mitigation measures if necessary to reduce potential impacts.

Biological Resources

Implementation of the EWMP projects could occur within existing sensitive habitats. The projects could result in changes to wildlife habitat, disruption of natural movement corridors, fragmentation or isolation of wildlife habitats, and disturbance of sensitive species during construction or operation. In particular, reduced flows in downstream segments resulting from runoff retention could alter riparian and aquatic habitats. The PEIR will evaluate the potential for such facilities to impact biological resources and will also discuss local ordinances and state and federal regulations governing biological resources.

Cultural Resources

The proposed EWMP BMPs would require construction of structural BMPs which could be above and/or below ground. Issues regarding cultural resources during construction activities could include disturbance of known or unknown archeological sites, paleontological resources, and/or human remains where groundbreaking activities occur as well as disturbance or alteration of structures with historical importance. The PEIR will assess the potential effects of the proposed EWMP BMPs on cultural resources, including archaeological, paleontological, and Native American resources. Mitigation measures will be identified if necessary to reduce the level of impact where possible.

Geology, Soils, and Seismicity

Southern Los Angeles County is a seismically active region. The proposed EWMP BMPs would require construction of structural BMPs that could be subject to potential seismic and geologic hazards, including

ground shaking, liquefaction, soil stability conditions, soil erosion rates, expansive soils, and landslides. Policies provided in the County's General Plan and applicable standard County requirements will be evaluated as to their effect of mitigating or avoiding any potentially significant effects. The PEIR will identify mitigation measures if necessary to reduce potential adverse effects to proposed facilities.

Greenhouse Gas Emissions

Implementation of proposed EWMP BMPs could result in the generation of greenhouse gas (GHG) emissions associated with construction and operations. The PEIR will estimate construction-related emissions and long-term operational emissions, including total CO_2-equivalent emissions for evaluating the effects of GHGs. The PEIR will examine the project's effects on global climate change and evaluate consistency of the project with the State's GHG emissions reduction goals.

Hazards and Hazardous Materials

Excavation during construction of proposed EWMP BMPs could uncover contaminated soils or hazardous substances that pose a substantial hazard to human health or the environment. Construction activities could result in the release of hazardous materials. Potential hazards will be evaluated and assessed by reviewing the data collected by the California State Water Resources Control Board (SWRCB) GeoTracker and the California Department of Toxic Substances Control (DTSC) Envirostor databases. The policies provided in the County's General Plan and any standard County requirements will be evaluated as to their effect of mitigating or avoiding any potentially significant effects. The PEIR will evaluate the potential for EWMP projects to result in the release of hazardous materials. Mitigation measures will be proposed if necessary to reduce any significant effects of the project that may involve hazardous material issues to ensure that any hazards encountered during construction would be handled in accordance with applicable regulations.

Hydrology and Water Quality

Implementation of the proposed EWMP BMPs may change local drainage patterns at construction sites, which could affect the volume, quality, and rates of surface runoff that in turn could affect local surface water resources. Considered cumulatively, the proposed EWMP facilities may also change regional drainage patterns, which could affect the hydrology, hydraulics, and/or water quality of streams, rivers, and other receiving waters. The PEIR will identify relevant federal, state, and local regulations and agencies, including provisions of the federal Clean Water Act, the state Porter-Cologne Water Quality Control Act, and the permitting and regulatory authority of the RWQCB. The PEIR will identify stormwater quality protection measures required during construction and operation of proposed facilities. The PEIR also will evaluate potential impacts to flood control capacity and develop mitigation strategies if necessary to avoid significant impacts.

Implementation of the proposed EWMP BMPs would likely result in increased infiltration and recharge in various locations throughout the EWMP watersheds. Such activities could affect local groundwater levels and water quality. The PEIR will evaluate potential effects of increased storm water recharge and will identify mitigation measures if necessary to ensure that potentially necessary significant impacts are reduced or avoided.

Land Use and Recreation

Implementation of the proposed EWMP BMPs would include implementation of structural BMPs throughout the EWMP watershed areas. Issues associated with land use and planning could result from construction of new BMPs from the proposed EWMP. Issues associated with these components could

include compatibility with adjacent land uses or zoning designations, consistency with relevant land use policies, and access to adjacent land during new construction or repairs of existing flood control or recharge facilities. The PEIR will evaluate the compatibility of the proposed EWMP BMPs with existing and planned land uses within the EWMP watershed areas.

Noise

Implementation of the proposed EWMP BMPs would require implementation of structural BMPs that would potentially generate noise and vibration. Construction activities that could be a significant source of noise and vibrations include trucking operations, use of heavy construction equipment (e.g., graders, cranes, and frontend loaders), pile driving activities, and blasting. Fixed sources of noise may include pumps and motors at pump stations. Construction noise and vibration impacts related to the proposed EWMP facilities will be evaluated at a program level. The PEIR will recommend mitigation strategies to ensure that proposed EWMP projects implemented by local agencies comply with local noise policies and ordinances.

Population and Housing/Growth Inducement

Implementation of the proposed EWMP BMPs will include implementation of structural and nonstructural BMPs that would improve water quality and increase stormwater infiltration. The proposed EWMP BMPs are unlikely to affect population and housing or induce growth. In addition, construction of the proposed EWMP BMPs or alteration of current facilities is not anticipated to lead to displacement or interruption of operation of businesses during construction. The PEIR will, however, identify current population and employment projections and identify local planning jurisdictions with the authority to approve growth and mitigate secondary effects of growth.

Public Services

Implementation of the proposed EWMP BMPs is unlikely to affect demand for public services, or, by itself, to require new or expanded facilities for public service providers. Potential issues related to the construction and operation of the proposed EWMP facilities include disruption or impediment of fire, police, or other emergency services to areas/facilities where proposed EWMP facilities would be constructed or operated. However, the PEIR will assess the potential for the proposed EWMP BMPs to affect police and fire protection services, schools, parks, and recreational facilities, such that new or expanded buildings or structures may be required that would, in turn, affect the environment.

Traffic and Transportation

Construction of the proposed EWMP BMPs could affect traffic on local roadways as a result of vehicle trips associated with hauling of material and equipment, road closures and detours, increased demand for parking to serve construction workers, and increase in traffic hazards caused by construction activities. The PEIR will evaluate the potential for additional construction vehicles, lane closures, or road closures to impact traffic and circulation. The PEIR will identify mitigation strategies to reduce any potential effects.

Utilities and Energy

Potential issues related to the construction and operation of the proposed BMPs include the disruption or impediment of service to areas where the proposed BMPs would be constructed or operated. Existing and projected regional supplies, demands, and facilities will be described along with any existing constraints, deficiencies, or service issues for the proposed EWMP BMPs. The PEIR will evaluate the project's potential to affect utilities and will identify mitigation measures to minimize the effects.

Implementation of the proposed EWMP BMPs would also result in implementation of watershed control measures that may potentially increase the amount of energy required locally to operate some of these BMPs. The PEIR will evaluate potential energy consumption associated with implementation of structural and nonstructural BMPs.

Attachment 2

Notice of Completion

ESA

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P. O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH # _____

Project Title: Enhanced Watershed Management Programs (EWMP) Program EIR

Lead Agency: Los Angeles County Flood Control District (LACFCD) Contact Person: Gregg BeGell

Mailing Address: 900 South Fremont Avenue, 11th Floor Phone: (626) 300-3298

City: Alhambra Zip: 91803 County: Los Angeles

Project Location: County: Los Angeles City/Nearest Community: Greater Los Angeles Area

Cross Streets: Throughout Los Angeles County Zip Code: Other

Lat. / Long.: Other N/ Other W Total Acres: Various

Assessor's Parcel No.: Various throughout Los Angeles County Section: Various Twp.: Various Range: Various Base: Various

Within 2 Miles: State Hwys #: 1, 2, 19, 27, 47, 60, 90, 91, 101, 103, 107, 187 Waterways: Ballona Creek, Los Angeles River, San Gabriel River, Santa Clara River, Malibu Creek, Dominguez Channel, Santa Monica Bay and Marina del Rey

Airports: LAX, Burbank Railways: Throughout LA County Schools: Throughout LA County

RECEIVED
AUG 29 2014
STATE CLEARING HOUSE

Document Type:

CEQA: ☒ NOP ☐ Draft EIR ☐ Early Cons ☐ Supplement/Subsequent EIR ☐ Neg Dec (Prior SCH No.) ☐ Mit Neg Dec Other

NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI

Other: ☐ Joint Document ☐ Final Document ☐ Other

Local Action Type:

☐ General Plan Update ☐ General Plan Amendment ☐ General Plan Element ☐ Community Plan ☒ Other: MS4 Compliance Projects

☐ Specific Plan ☐ Master Plan ☐ Planned Unit Development ☐ Site Plan

☐ Rezone ☐ Prezone ☐ Use Permit ☐ Land Division (Subdivision, etc.)

☐ Annexation ☐ Redevelopment ☐ Coastal Permit

Development Type:

☐ Residential: Units _____ Acres _____
☐ Office: Sq.ft. _____ Acres _____ Employees _____
☐ Commercial: Sq.ft. _____ Acres _____ Employees _____
☐ Industrial: Sq.ft. _____ Acres _____ Employees _____
☐ Educational _____
☐ Recreational _____

☒ Water Facilities: Type Stormwater MGD _____
☐ Transportation: Type _____
☐ Mining: Mineral _____
☐ Power: Type _____ MW _____
☐ Waste Treatment: Type _____ MGD _____
☐ Hazardous Waste: Type _____
☐ Other: _____

Project Issues Discussed in Document:

☒ Aesthetic/Visual ☒ Agricultural Land ☒ Air Quality ☒ Archeological/Historical ☒ Biological Resources ☐ Coastal Zone ☒ Drainage/Absorption ☐ Economic/Jobs ☒ Other Cultural Resources

☐ Fiscal ☒ Flood Plain/Flooding ☐ Forest Land/Fire Hazard ☒ Geologic/Seismic ☒ Minerals ☒ Noise ☒ Population/Housing Balance ☒ Public Services/Facilities

☒ Recreation/Parks ☐ Schools/Universities ☐ Septic Systems ☐ Sewer Capacity ☒ Soil Erosion/Compaction/Grading ☐ Solid Waste ☒ Toxic/Hazardous ☒ Traffic/Circulation

☒ Vegetation ☒ Water Quality ☒ Water Supply/Groundwater ☒ Wetland/Riparian ☒ Wildlife ☐ Growth Inducing ☒ Land Use ☒ Cumulative Effects

Present Land Use/Zoning/General Plan Designation:

Various land uses throughout the County.

Project Description: *(please use a separate page if necessary)*

The development of the EWMP will involve the evaluation and selection of multiple watershed control measures or best management practices (BMP) types including non-structural and distributed, centralized and regional structural BMPs. These BMPs will be implemented to meet compliance goals and strategies under the 2012 MS4 Permit. Structural BMPs involve the construction of a physical control measure to alter the hydrology and/or water quality of incoming stormwater or non-stormwater. The three major functions for structural BMPs are infiltration, water quality treatment, and storage. There are three categories of structural BMPs, defined by the runoff area treated by the BMP and the required

retention volume in accordance with the Permit. "Regional EWMP projects" are defined by the MS4 Permit as multi-benefit regional projects that, wherever feasible, retain all non-storm water runoff and all storm water runoff from the 85th percentile, 24-hour storm event for the contributing drainage areas, while also achieving other benefits including flood control and/or water supply. These structural BMPs are defined as "regional" BMPs based on this Permit retention requirement. Example of regional structural BMPs include infiltration BMPs, detention basins and capture and use BMPs. Centralized structural BMPs capture and treat stormwater from a contributing area of multiple parcels, and include bio-infiltration BMPs, constructed wetlands, and creek/stream restoration projects. Generally, centralized BMPs are installed on large public parcels or adjacent to storm drain outfalls and receiving waters. Distributed structural BMPs are constructed structural practices intended to treat runoff close to the source and are typically implemented at a single- or few-parcel level.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "X".
If you have already sent your document to the agency please denote that with an "S".

____	Air Resources Board	____	Office of Emergency Services
____	Boating & Waterways, Department of	____	Office of Historic Preservation
____	California Highway Patrol	____	Office of Public School Construction
____	CalFire	S	Parks & Recreation
S	Caltrans District # 7	____	Pesticide Regulation, Department of
____	Caltrans Division of Aeronautics	____	Public Utilities Commission
____	Caltrans Planning (Headquarters)	S	Regional WQCB # 4
____	Central Valley Flood Protection Board	____	Resources Agency
____	Coachella Valley Mountains Conservancy	____	S.F. Bay Conservation & Development Commission
____	Coastal Commission	X	San Gabriel & Lower L.A. Rivers and Mtns Conservancy
____	Colorado River Board	____	San Joaquin River Conservancy
____	Conservation, Department of	X	Santa Monica Mountains Conservancy
____	Corrections, Department of	____	State Lands Commission
____	Delta Protection Commission	____	SWRCB: Clean Water Grants
____	Education, Department of	X	SWRCB: Water Quality
____	Energy Commission	____	SWRCB: Water Rights
S	Fish & Game Region # South Coast Region	____	Tahoe Regional Planning Agency
____	Food & Agriculture, Department of	S	Toxic Substances Control, Department of
____	General Services, Department of	____	Water Resources, Department of
S	Health Services, Department of		
____	Housing & Community Development	S	Other County of Los Angeles, Board of Supervisors Dist 1, 2, 3, 4, 5
____	Integrated Waste Management Board	____	

Local Public Review Period (to be filled in by lead agency)

Starting Date 8/29/2014 Ending Date 9/29/2014

Lead Agency (Complete if applicable):

Consulting Firm: Environmental Science Associates
Address: 626 Wilshire Blvd.
City/State/Zip: Los Angeles/CA/90017
Contact: David Pohl
Phone: (213) 599-4300

Applicant: Los Angeles County Flood Control District (LACFCD)
Address: 900 S Fremont Ave
City/State/Zip: Alhambra/CA/91803
Phone: 626-458-4300

Signature of Lead Agency Representative: Angela George **Date:** 8/28/2014

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

Attachment 3

Summary of NOP Availability Emails

Email address - other	Email Lists	Source Name	Created At	Updated At	Opened At
llee@dpw.lacounty.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/15/2014 9:46am
diane.marcussen@altadenatowncouncil.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/12/2014 6:03pm
alfredo.magallanes@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/12/2014 5:36pm
angeles.chapter@sierraclub.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/12/2014 5:11pm
srobinson@jlha.net	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/12/2014 12:36pm
rasmusjb@bv.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	9/11/2014 7:10pm
andrea.crumpacker@westonsolutions.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	9/11/2014 3:48pm
rlaveaga@cityofpasadena.net	LACFC EWMP PEIRS,MIG eNews External		10/10/2013 10:56	8/29/2014 14:55	9/11/2014 12:32pm
twest@carollo.com	LACFC EWMP PEIRS,CWCB Updates		2/8/2013 17:43	8/29/2014 14:55	9/11/2014 11:16am
bobbigold@ucla.edu	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/10/2014 8:01pm
info@adtowncouncil.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/10/2014 8:00pm
atwater.richard@gmail.com	LACFC EWMP PEIRS,CWCB Updates		2/12/2013 13:54	8/29/2014 14:18	9/10/2014 5:37pm
dbloome@treepeople.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	9/10/2014 5:06pm
petra.schneider@netzero.net	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/10/2014 3:17pm
sandiaennis@castaicareatowncouncil.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/10/2014 2:22pm
tmm@arroyoseco.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/10/2014 12:36pm
greg.good@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/9/2014 7:50pm
cicwater@gmail.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/9/2014 12:46pm
mklee@jlha.net	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/9/2014 10:52am
tavalos@dpw.lacounty.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/9/2014 10:23am
andyw@rpv.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/8/2014 8:31pm
lenny@lcwstewards.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/8/2014 7:11pm
tlee@cityofinglewood.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/8/2014 6:54pm
maria.agustin@dot.ca.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/8/2014 4:07pm
environment@asnc.us	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/8/2014 3:03pm
razz.berry@verizon.net	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/8/2014 2:34pm
kcurtis@portla.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	9/8/2014 1:05pm
jthorsen@malibucity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/8/2014 12:22pm
danielle.sevilla@gmail.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	9/8/2014 11:28am
davejohnson@sgvmwd.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/8/2014 9:44am
winter@theriverproject.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	9/6/2014 4:20pm
jsamson@larivercorp.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/5/2014 9:08pm
jkitz@mountainstrust.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/5/2014 2:36pm

First name

Black & Veatch
Weston Solutions

So CA Water Committee - Stormwater task force
TreePeople

Port of Los Angeles

The River Project

johng@sccwrp.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/5/2014 1:11pm
jgamble@lvmwd.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/5/2014 11:41am
pherzog@surfrider.org	LACFC EWMP PEIRS,CWCB Updates		2/12/2013 13:54	8/29/2014 14:18	9/4/2014 8:57pm
stevenmwilliams99@gmail.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/4/2014 8:44pm
steve.williams@rcdsmm.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/4/2014 8:44pm
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jguerrer@dpw.lacounty.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/4/2014 7:20pm
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mvoong@waterboards.ca.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	9/4/2014 5:25pm
dillardjoyce@yahoo.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/4/2014 2:39pm
adrienne@southcoastbotanicgarden.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/4/2014 1:57pm
christine.frey@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/4/2014 1:31pm
elaine.jeng@redondo.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/4/2014 12:38pm
ddolphin@cityofalhambra.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/4/2014 12:28pm
mgalvez@jlha.net	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/4/2014 1:52am
info@wearemdr.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/4/2014 1:10am
wetlandact@earthlink.net	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/3/2014 5:35pm
afarassati@cityofcalabasas.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/3/2014 5:26pm
rmechsner@westranchtowncouncil.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/3/2014 5:18pm
hamid.tadayon@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/3/2014 5:00pm
leclairejp@cdmsmith.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	9/3/2014 4:17pm
sho@paramountcity.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/3/2014 3:34pm
g.wolfberg@verizon.net	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/3/2014 3:16pm
jhendra@rcdsmm.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/3/2014 1:39pm
drennanmd@bv.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	9/3/2014 12:57pm
michael.scaduto@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/3/2014 12:53pm
richard.haimann@hdrinc.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	9/3/2014 12:10pm
charlie.yu@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/3/2014 12:04pm
amho@montereypark.ca.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/3/2014 11:17am
adelgado@fs.fed.us	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/3/2014 2:27am
cstevens@rcdsmm.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/3/2014 1:47am
jpereira@cwecorp.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 11:16pm
kjames@healthebay.org	LACFC EWMP PEIRS,CWCB Updates		2/8/2013 17:43	8/29/2014 14:18	9/2/2014 8:08pm
kharrel@cwecorp.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 6:55pm

Surf Rider

Council for Watershed Health
LARWQCB

CDM Smith

Black & Veatch

HDR

Heal the Bay

smoraleschoate@santafesprings.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 6:55pm
michael.affeldt@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 6:05pm
gold@ioes.ucla.edu	LACFC EWMP PEIRS,LAFCD Public Health		12/20/2012 17:29	8/29/2014 14:18	9/2/2014 5:57pm
education@coloradolagoon.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 5:34pm
editor@coloradolagoon.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 5:23pm
ajirik@portla.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	9/2/2014 5:16pm
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mhall@glacvcd.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 5:09pm
lynn.rodriguez@ventura.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 5:06pm
douglaspfay@aol.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 4:50pm
bjensen@valleyconnect.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 4:48pm
blake@watershedhealth.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 4:37pm
info@rcdsmm.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 4:33pm
gosmena@dpw.lacounty.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 4:29pm
victor.ruiz@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 4:13pm
csarabia@pvplc.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 4:07pm
davidthomas@vrsd.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 3:50pm
ewelina.mutkowska@ventura.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 3:06pm
friends@coloradolagoon.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 2:43pm
tpiasky@bialav.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	9/2/2014 2:33pm
obrownson@larivercorp.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	9/2/2014 2:28pm
katy_delaney@nps.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 2:07pm
denise_kamradt@nps.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 1:55pm
barbara.romero@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 1:20pm
cgeorge@malibucity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 1:11pm
brai@cityofinglewood.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 1:09pm
charles.herbertson@culvercity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 1:08pm
melissa.guerrero@mrca.ca.gov	LACFC EWMP PEIRS,MIG eNews External		10/10/2013 11:15	8/29/2014 14:18	9/2/2014 12:56pm
farhana.mohamed@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 12:55pm
chien.pei.yu@dot.ca.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	9/2/2014 12:54pm
shokoufe.marashi@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 12:52pm
jill.taylor@ccc.ca.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 12:35pm
kvivanti@lakewoodcity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 12:28pm
leighannek@westbasin.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 12:27pm

UCLA Institute of the Environment & Sustainability

Port of Los Angeles

Building Industry Association
Los Angeles Conservation Corps

Mountains Recreation & Conservation Authority

DOT Div 7, Division of Design

dcartagena@beverlyhills.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	9/2/2014 12:21pm
bhamamo@dpw.lacounty.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 12:13pm
chair@lbsurfrider.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 12:01pm
nutritwarehouse@yahoo.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 11:59am
jennifer@lancasterbiology.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 11:58am
bromley.eugene@epa.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 11:44am
jdettle@torrnet.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	9/2/2014 11:42am
lrocha@esassoc.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 11:39am
sperlstein@weho.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	9/2/2014 11:35am
lenise.marrero@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 11:35am
sabrina.rivera@aecom.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 11:33am
megan.whalen@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 11:20am
cmccullough@jlha.net	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 11:19am
joshua.carvalho@smgov.net	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	9/2/2014 11:15am
kendrick.okuda@lacity.org		Added by you	8/29/2014 14:55	9/2/2014 11:10	9/2/2014 11:04am
mtripp@bh.lacounty.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 11:04am
dkrauss@cityofhawthorne.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 11:01am
ys@cityofrh.net	LACFC EWMP PEIRS,MIG eNews External		10/10/2013 11:24	8/29/2014 14:55	9/2/2014 10:58am
susan.shu@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 10:53am
nadiac@rpv.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 10:50am
info@amigosdelosrios.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 10:42am
dsharpton@mountainstrust.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 10:36am
pmarkle@lacsd.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 10:34am
tony.li@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 10:34am
dawn.petschauer@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 10:33am
sbirosik@waterboards.ca.gov	LACFC EWMP PEIRS,CWCB Updates		2/8/2013 17:43	8/29/2014 14:55	9/2/2014 10:29am
ioannice.lee@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 10:28am
juan.benitez@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 10:25am
zora.baharians@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 10:23am
javier.solis@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 10:17am
lcelaya@ci.agoura-hills.ca.us	LACFC EWMP PEIRS,CWCB Updates		2/8/2013 17:43	8/29/2014 14:55	9/2/2014 10:06am
vijay.desai@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 10:04am
henry.yuan@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 10:02am
jeichler@citruscollege.edu	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 10:00am

City of Beverly Hills

City of West Hollywood

City of Santa Monica

taraneh.nik-khah@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 10:00am
wjohnson@dpw.lacounty.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 10:00am
hubertus.cox@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 9:42am
kaden.young@culvercity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	9/2/2014 9:26am
roulene.diego@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 9:25am
jon.ball@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 9:13am
marsa.chan@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 9:10am
member@tnc.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 9:08am
bineris@hotmail.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 12:42am
kjserv@aol.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/2/2014 12:04am
codyender@gmail.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/1/2014 10:44pm
rene.a.vermeeren@usace.army.mil	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	9/1/2014 9:22pm
dmueller@downeyca.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/1/2014 9:00pm
ctwilliams2012@yahoo.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/1/2014 5:22pm
ksusilo@geosyntec.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	9/1/2014 5:09pm
montgomerylizzy@gmail.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/1/2014 4:34pm
adel.hagekhalil@lacity.org	LACFC EWMP PEIRS,CWCB Updates		2/8/2013 17:43	8/29/2014 14:55	9/1/2014 2:31pm
kkemmler@scc.ca.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	9/1/2014 1:22am
coconnell@westranchtowncouncil.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/31/2014 11:17pm
jim.lamm@ballonacreek.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	8/31/2014 7:19pm
kellyquick@castaicareatowncouncil.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/31/2014 5:25pm
tmoon@dpw.lacounty.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	8/31/2014 1:50pm
lakesidemedia@earthlink.net	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/31/2014 1:38pm
dlippman@lvmwd.com	LACFC EWMP PEIRS,CWCB Updates		2/8/2013 17:43	8/29/2014 14:55	8/31/2014 9:58am
mark.capelli@noaa.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/31/2014 3:43am
jhignite@charter.net	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/31/2014 1:13am
djacobs@ucla.edu	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/31/2014 12:39am
ehuerta28@gmail.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/30/2014 11:40pm
cristorey@charter.net	LACFC EWMP PEIRS,sbX	eNewsletter,sbX	12/18/2009 18:16	8/29/2014 14:55	8/30/2014 11:08pm
info@pacpalicc.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/30/2014 6:27pm
lisaf@ballonafriends.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	8/30/2014 6:19pm
alisonlinder@yahoo.com	LACFC EWMP PEIRS,GoodsMovement		4/20/2009 17:31	8/29/2014 14:55	8/30/2014 5:45pm
dan@covina.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/30/2014 5:32pm
ian@aquatechnex.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/30/2014 3:53pm

Culver City

USACE

Geosyntec

Ballona Creek Renaissance

County of Los Angeles/

Friends of Ballona Wetlands
Ms. Alison

ksander@usc.edu	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	8/30/2014 2:44pm
rexfrankel@yahoo.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/30/2014 1:57pm
retamoser@gmail.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/30/2014 1:33pm
lrapp@lakewoodcity.org	LACFC EWMP PEIRS,MIG eNews External		10/10/2013 11:15	8/29/2014 14:55	8/30/2014 1:19pm
craig.collins@silverlakereservoirs.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:55	8/30/2014 1:06pm
salbers@rcdsmm.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/30/2014 1:01pm
karen@longbeachmarine.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/30/2014 12:50pm
lesliepurcell@gmail.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/30/2014 12:45pm
martykreisler@castaicareatowncouncil.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/30/2014 11:45am
robert.thiel@cox.net	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/30/2014 11:36am
patrickatwater@gmail.com		Added by you	8/29/2014 14:55	8/30/2014 11:24	8/30/2014 11:23am
bdingman@lvmwd.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/30/2014 10:35am
njohn@lawa.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/30/2014 1:35am
naturetrust@earthlink.net	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/30/2014 12:34am
nicoleshu718@gmail.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/30/2014 12:24am
david.a.ford@sce.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/30/2014 12:11am
clarkdeblasio@gmail.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/30/2014 12:00am
chair@surfrider-southbay.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 11:41pm
stevefreee@gmail.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 11:10pm
wernerdesign@verizon.net	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 11:02pm
camswift@pacbell.net	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 10:54pm
gardens@rodsatt.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 10:54pm
sean.anderson@csuci.edu	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 10:19pm
wrigleyisgoinggreen@hotmail.com	LACFC EWMP PEIRS,I-710 Interested Pers		7/26/2012 15:45	8/29/2014 14:55	8/29/2014 10:12pm
mstevens@kinneticlabs.net	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 10:09pm
reymundo@usgvmwd.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 9:57pm
robert.vega@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 9:48pm
ggreene@cwecorp.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 9:43pm
jeffpreach@castaicareatowncouncil.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 9:29pm
pamela.hirneisen@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 9:16pm
wing.tam@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 9:16pm
rcdsmm.edu@gmail.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 9:12pm
jbellomo@willdan.com	LACFC EWMP PEIRS,CWCB Updates		2/12/2013 13:54	8/29/2014 14:55	8/29/2014 8:58pm
annette@expogreenway.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	8/29/2014 8:54pm

USC

Ballona Creek Renaissance

djohns@crpd.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 8:46pm
garcia.crystal.1990@gmail.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 8:42pm
angelica.hernandez@sen.ca.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 8:29pm
ghildeb@dpw.lacounty.gov	LACFC EWMP PEIRS,LAFCD Public Health		12/20/2012 17:49	8/29/2014 14:18	8/29/2014 8:28pm
ninh.hong@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 8:28pm
cunguyen@dpw.lacounty.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	8/29/2014 8:14pm
khostert@swwc.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 8:04pm
rwatson@rwaplanning.com	LACFC EWMP PEIRS,I-710 Interested Pers		6/12/2013 15:01	8/29/2014 14:55	8/29/2014 8:03pm
travislongcore@losangelesaudubon.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	8/29/2014 8:00pm
johngrap@ucla.edu	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 8:00pm
skennedy@enfact.net	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 7:58pm
oaksrus@verizon.net	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 7:53pm
dkoo@waterboards.ca.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 7:49pm
spincetl@ioes.ucla.edu	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	8/29/2014 7:43pm
ghanraha@callutheran.edu		Added by you	8/29/2014 14:55	8/29/2014 19:43	8/29/2014 7:43pm
llamonte@malibucity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 7:42pm
rod.merl@smgov.net	LACFC EWMP PEIRS,MIG eNews External		10/10/2013 11:18	8/29/2014 14:55	8/29/2014 7:39pm
jbrown@malibucity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 7:39pm
jsimes@usbr.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	8/29/2014 7:38pm
shane@usgvmwd.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 7:38pm
ccash@paramountcity.com	LACFC EWMP PEIRS,I-710 Master,I-710 C		6/29/2010 18:24	8/29/2014 14:55	8/29/2014 7:36pm
sgroner@sga-inc.net	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 7:31pm
traci.minamide@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 7:30pm
svalor@santamonicabay.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 7:30pm
tim.pershing@asm.ca.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 7:29pm
crivers@cwecorp.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 7:25pm
dragos@blue-tomorrow.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 7:24pm
miguel@gdmlonline.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	8/29/2014 7:23pm
gbrideau@therobertgroup.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 7:23pm
miguel@dakeluna.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 7:23pm
fwu@dpw.lacounty.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	8/29/2014 7:22pm
bsaito@lacorps.org	LACFC EWMP PEIRS,CWCB Updates		2/12/2013 13:54	8/29/2014 14:18	8/29/2014 7:21pm
ysim@dpw.lacounty.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	8/29/2014 7:20pm
lalexanderson@dpw.lacounty.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	8/29/2014 7:19pm

Director of Operations/Manager of Watersheds, LADW

LADWP

The Audubon Society

UCLA Institute of the Environment & Sustainability

US BOR

Raymond

The Green Coalition

LADWP
Los Angeles Conservation Corps
LADWP
LADWP

jennifer@la-bike.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	8/29/2014 7:18pm
belindafaustinos@gmail.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 7:17pm
aosheagreenfield@bialav.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 7:15pm
eileen.k.takata@usace.army.mil	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	8/29/2014 7:09pm
susie.santilena@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 7:09pm
jmaret@dfg.ca.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 7:09pm
tcontreras@fs.fed.us	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 7:05pm
nancy@watershedhealth.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	8/29/2014 7:04pm
mgbrown@bialav.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 7:04pm
gpidwb@gmail.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 7:02pm
judithdavies66@gmail.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 7:01pm
dwayman@scc.ca.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 7:00pm
jdougall@lvmwd.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:59pm
kristy@watershedhealth.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:58pm
helsleyn@gmail.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:58pm
kfisher@ci.agoura-hills.ca.us	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:58pm
info@hillsforeveryone.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:57pm
wendy.dinh@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:56pm
jbiggs@brwncald.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:54pm
vicepresident@asnc.us	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:52pm
michelle.mattson@westonsolutions.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	8/29/2014 6:51pm
fbarros@usc.edu	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	8/29/2014 6:49pm
president@asnc.us	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:49pm
gusm@westbasin.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:46pm
kim@saveourbeach.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:46pm
mkbartl@gmail.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:46pm
eric.vuong@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:45pm
jon@expogreenway.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	8/29/2014 6:44pm
elopez@wrd.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:44pm
ggalindo@lapuentewater.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:44pm
troy.ezeh@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:43pm
snissman@lacbos.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:42pm
domingo.orosco@lacity.org	LACFC EWMP PEIRS,CWCB Updates		2/8/2013 17:43	8/29/2014 14:55	8/29/2014 6:41pm
javier@bikesgv.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:41pm

Los Angeles County Bicycle Coalition

USACE

Council for Watershed Health

Weston Solutions
USC

Ballona Creek Renaissance

cleanlb@halloworld.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:40pm
stephanieebia@castaicareatowncouncil.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:39pm
dflores@rmcwater.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:39pm
trisham@aol.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 15:39	8/29/2014 6:38pm
gderas@pico-rivera.org	LACFC EWMP PEIRS,CWCB Updates		2/8/2013 17:43	8/29/2014 14:55	8/29/2014 6:37pm
srapoport@waterboards.ca.gov	LACFC EWMP PEIRS,CWCB Updates		2/8/2013 17:43	8/29/2014 14:18	8/29/2014 6:37pm
bryan.truong@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:37pm
ramon.barajas@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:37pm
vivian.marquez@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:37pm
dpedersen@lvmwd.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:37pm
irina_irvine@nps.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:37pm
anne_dove@nps.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:35pm
g3owl1@gmail.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:35pm
lhempe@lynwood.ca.us	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:35pm
rbryden@dpw.lacounty.gov	LACFC EWMP PEIRS,LAFCD Public Health		12/20/2012 17:49	8/29/2014 14:18	8/29/2014 6:34pm
dpelser@cityofwhittier.org	LACFC EWMP PEIRS,CWCB Updates		2/8/2013 17:43	8/29/2014 14:55	8/29/2014 6:34pm
azya.jackson@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:34pm
jbrickey@jlha.net	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:34pm
anthony.spina@noaa.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:34pm
rick.valte@smgov.net	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42	8/29/2014 6:33pm
bthompson@willdan.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:33pm
ogalang@brwncald.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 18:36	8/29/2014 6:33pm
pavlova.vitale@waterboards.ca.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:33pm
sarah@landspaces.net	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55	8/29/2014 6:32pm

LARWQCB

LADWP

City of Santa Monica

Oliver

Email address - other	Email Lists	Source Name	Created At	Updated At
dave.jones@ch2mhill.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
dfleming@westranchtowncouncil.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
amousavi@infeng.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
rwinter@westranchtowncouncil.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
btoqe@westranchtowncouncil.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
jzimmerman@westranchtowncouncil.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
debbie@downtownsm.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
dave.weshoff@sfvaudobon.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42
jeanette@grassrootscoalation.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42
gregg@ci.rolling.hillsestates.ca.us	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
virginia.wei@iadwp.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
tatiana@lawaterkeeper.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42
alexander.vasquez@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
chris.demonbun@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
clayton.yoshida@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
david.cheung@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
emerverto.cheng@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
megan.whalen@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
ninh.hong@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
pamela.hirneisen@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
robert.vega@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
rnezhad@ennncald.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
roxana.marashi@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
sergio.u.perez@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
shahram.kharagani@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
tfinney@parks.lacounty.gob	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
arne_anselm@ventura.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
peter@epa.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
rick.bush@noaa.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
acervantes@sogate.org	LACFC EWMP PEIRS,I-710 Master,I-710 ESW		7/19/2010 14:48	8/29/2014 14:55
mpestrella@dpw.lacounty.gov	LACFC EWMP PEIRS,CWCB Updates		2/12/2013 13:54	8/29/2014 14:18
phong@bos.lacounty.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42
nancy@watershedhealth.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42

Bounce Reason	First name
Undeliverable	
Mailbox full	
Undeliverable	
Mailbox full	
Mailbox full	
Mailbox full	
Undeliverable	
Undeliverable	The Audubon Society
Undeliverable	Ballona Creek Renaissance
Undeliverable	
Undeliverable	
Non-existent	Los Angeles Waterkeeper
Other	
Other	
Other	
Vacation / Auto reply	
Other	
Vacation / Auto reply	
Vacation / Auto reply	
Vacation / Auto reply	
Vacation / Auto reply	
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Other	
Other	
Other	
Undeliverable	
Non-existent	
Non-existent	
Vacation / Auto reply	
Non-existent	Arturo
Non-existent	Assistant Director, LADWP
Non-existent	LA County Board of Supervisorial District 2
Vacation / Auto reply	Council for Watershed Health

mike@watershedhealth.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42
bishop.john@epa.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42
josephine.r.axt@usace.army.mil	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42
feldman@uci.edu	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42
titushz@bv.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42
steven.finton@culvercity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42
sarahh@sbcglobal.net	LACFC EWMP PEIRS	Added by you	8/29/2014 14:18	8/29/2014 14:42
andy.niknafs@water.ladwp.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
hcike@ularawatermaster.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
tony@watermaster.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
armando.yanez@asm.ca.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
barbarailor@gmail.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
chrism@iwa.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
claudia.goytia@asm.ca.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
damian.skinner@culvercity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
david.mcneill@n0spam.bhc.ca.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
dawnfaulconer@castaicareatowncouncil.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
hmaldonedo@parks.lacounty.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
jeff.r.catalano@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
landtrust@ballona.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
johnkunak@castaicareatowncouncil.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
julie.sauter@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
khaberson@tvmwd.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
kluoe@lacsd.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
kmcgowan@geosyntec.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
kendrick.okuda@lacity.org		Added by you	8/29/2014 14:55	9/2/2014 11:10
kristamjohnson@sox.net	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
twatts@seyfarth.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
motto@geosyntec.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
raulleon@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
robinkirke1@yahoo.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
ryan.thiha@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
shahriar.eftekharzadeh@aecom.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
stefanie.smith@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55

Vacation / Auto reply	Council for Watershed Health
Non-existent	USEPA Region 9
Non-existent	USACE
Non-existent	UC-Irvine
Non-existent	Black & Veatch
Non-existent	Culver City
Non-existent	Ballona Creek Renaissance
Non-existent	
Non-existent	
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Vacation / Auto reply	

stevemyrter@cityofsignalhill.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
tom.gibson@lacity.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
ayala_z@sgusd.k12.ca.us	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
cfelixso@ucla.edu	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
contact@thecvcouncil.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
davidw@epamail.epa.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
deborah@waterboards.ca.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
development@treepeople.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
information@coyotehills.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
jkitz@mountainstrust.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
kbelzer@fionahuttonassoc.com	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
margie_steigerwald@nps.gov	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
mikeb@unitedwater.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
rdagit@rcdsmm.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
steveh@unitedwater.org	LACFC EWMP PEIRS	Added by you	8/29/2014 14:55	8/29/2014 14:55
liangbingl001@hotmail.com	LACFC EWMP PEIRS	Added by you	8/29/2014 15:39	8/29/2014 15:39

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Attachment 4

Scoping Meeting Presentation

ESA

Enhanced Watershed Management Programs

Program Environmental Impact Report Scoping Meeting

Los Angeles County Flood Control District

September 9, 2014

Chace Park Community Room

13650 Mindanao Way

Marina del Rey, CA 90292

Welcome and Introductions

- Los Angeles County Flood Control District (LACFCD)
  - Gregg BeGell, P.E., Project Manager
  - TJ Moon
- Weston Solutions, Inc.
  - Andrea Crumpacker
- Environmental Science Associates
  - Environmental Consultant: ESA
    - Tom Barnes, Project Director
    - David Pohl, Project Manager

Scoping Meeting Agenda

- Municipal Separate Storm Sewer System (MS4) Discharge Permit
  - Enhanced Watershed Management Program (EWMP)
  - LACFCD Role
- California Environmental Quality Act (CEQA) Overview and Process
- Issues to be analyzed in the Program Environmental Impact Report (PEIR)
- CEQA Schedule
- Receive Public Comments

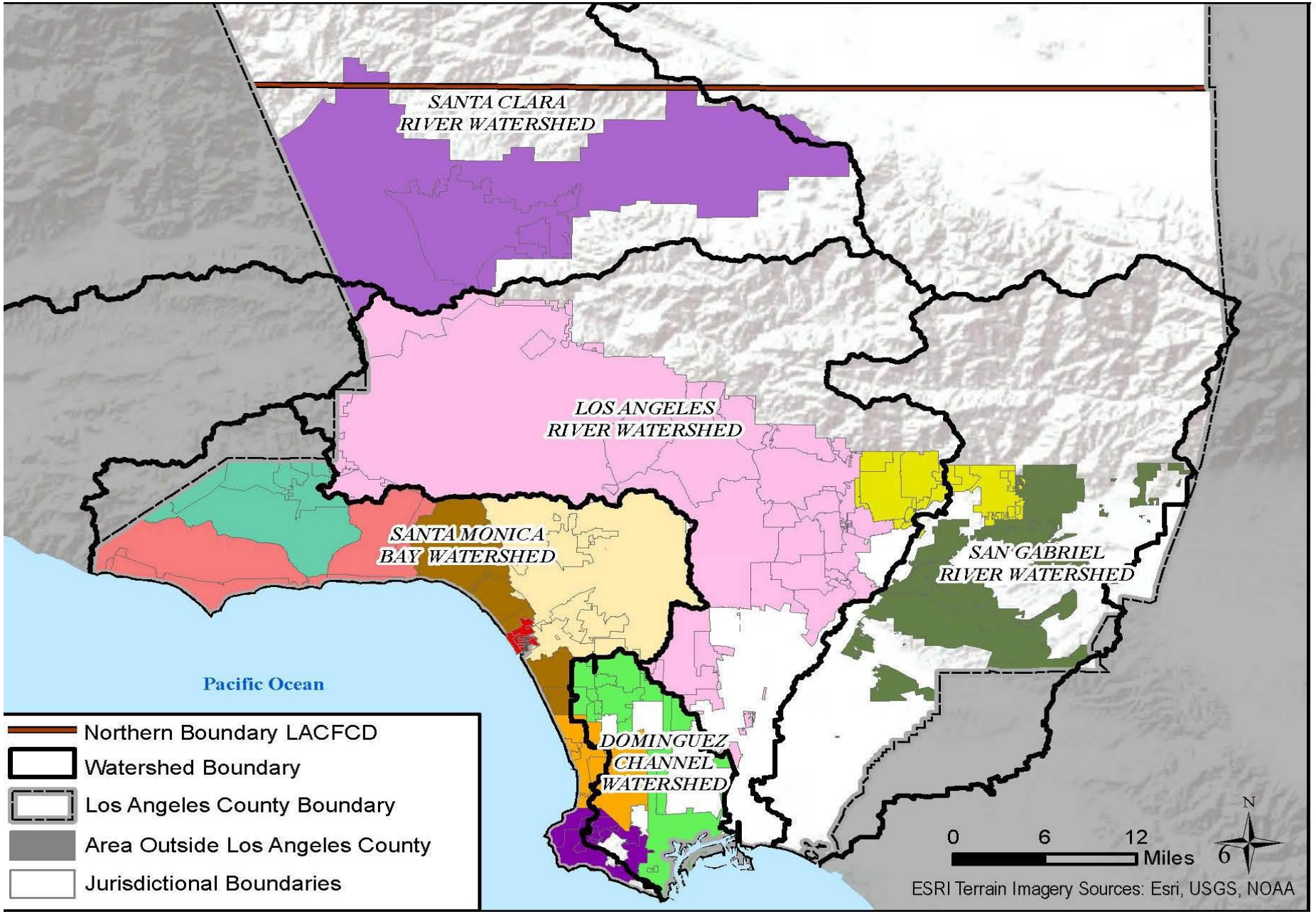
MS4 Permit Compliance

- **Project Purpose:** MS4 Permit Compliance (R4-2012-0175)
  - Each Permittee is responsible for its local MS4 compliance
  - Permit compliance through EWMPs
    - 12 NOIs submitted to LARWQCB
    - Collectively prepared by participating Permittees
  - Los Angeles Regional Water Quality Control Board (LARWQCB) approves EWMPs

Enhanced Watershed Management Program (EWMP)

- Identify Watershed Control Measures
  - Structural Best Management Practices (BMPs)
  - Non-Structural BMPs
- Reasonable Assurance Analysis
- Priority Ranking
- Implementation by each participating Permittee

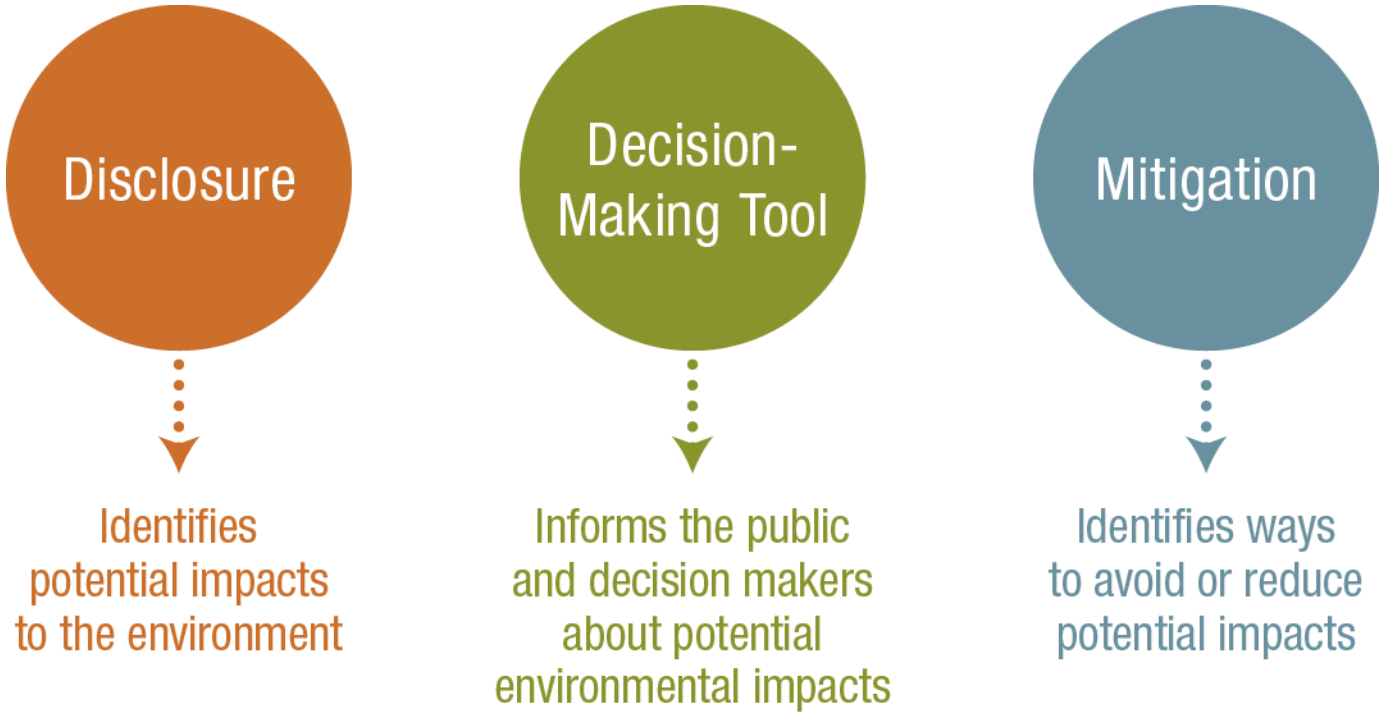
MS4 EWMP Participating Permittees



MS4 EWMP Participating Permittees

Group Name	Permittees Involved
Ballona Creek	Beverly Hills, Culver City, Inglewood, Los Angeles, Santa Monica, West Hollywood, LA County, LACFCD
Beach Cities Watershed Management Group	Hermosa Beach, Manhattan Beach, Redondo Beach, Torrance, LACFCD
Dominguez Channel Watershed Management Group	El Segundo, Hawthorne, Inglewood, Los Angeles, Lomita, LA County, LACFCD
Malibu Creek Watershed	Agoura Hills, Calabasas, Hidden Hills, Westlake Village, LA County, LACFCD
Marina Del Rey	Culver City, Los Angeles, LA County, LACFCD
North Santa Monica Bay Coastal Watersheds	LA County, Malibu, LACFCD
Palos Verdes Peninsula EWMP Agencies	Palos Verdes Estates, Rancho Palos Verdes, Rolling Hills Estates, LA County, LACFCD
Rio Hondo/San Gabriel River Water Quality Group	Arcadia, Azusa, Bradbury, Duarte, Monrovia, LA County, Sierra Madre, LACFCD
Santa Monica Bay Watershed Jurisdictions 2 & 3	Los Angeles, El Segundo, Santa Monica, LA County, LACFCD
Upper Los Angeles River Watershed	Alhambra, Burbank, Calabasas, Glendale, Hidden Hills, La Canada Flintridge, Los Angeles, Montebello, Monterey Park, Pasadena, Rosemead, San Gabriel, San Marino, South Pasadena, Temple City, LA County, LACFCD
Upper San Gabriel River	Baldwin Park, Covina, Glendora, Industry, La Puente, LA County, LACFCD
Upper Santa Clara River Watershed	LA County, Santa Clarita, LACFCD

California Environmental Quality Act (CEQA)



Overview – Why is LACFCD leading this PEIR?

- LACFCD operates and maintains flood control facilities in all 12 EWMP Groups
- LACFCD has vested interest in increasing opportunities for stormwater capture and groundwater recharge
- LACFCD will be working with Permittees and other stakeholders in all 12 EWMP watersheds to identify potential projects
- The proposed projects may have an environmental impact

Overview - Role of Permittees

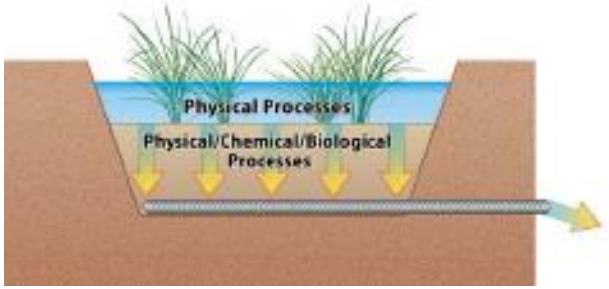
- EWMPs will be implemented by the Permittees with jurisdiction in EWMP area
- The Permittees implementing the proposed projects, or “Implementing Agencies,” will vary between EWMPs and individual projects

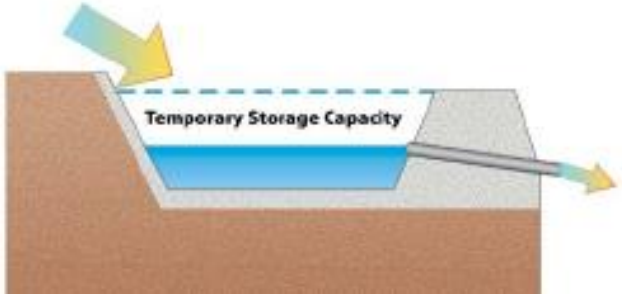
Proposed Project Objectives

- Achieve Water Quality Performance goals through EWMP implementation
- Regional Compliance with the MS4 Permit
  - Coordinated implementation of compliance strategies
  - Watershed-specific compliance strategies
- Environmentally Responsible Opportunities
  - Beneficial flood control, water supply, and habitat

Watershed Control Measures

- Structural BMPs or Physical Control Measures
  - Infiltration
  - Water quality treatment
  - Storage
- Categories of Structural BMPs
  - Regional
  - Centralized
  - Distributed
- Non-Structural BMPs

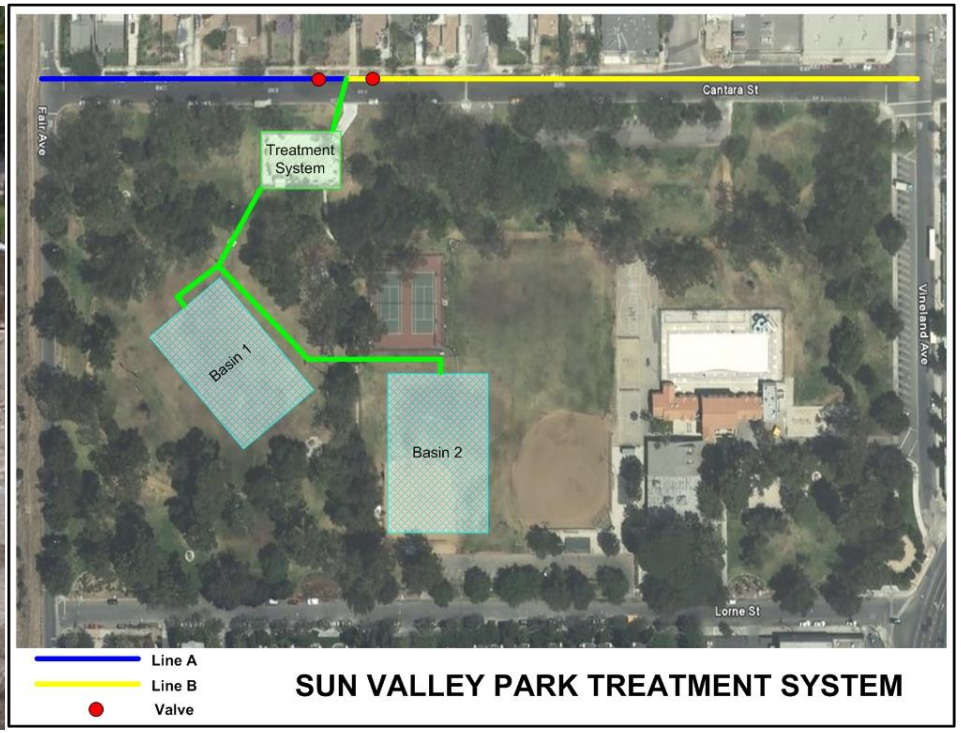




Regional EWMP Projects

- Retain all runoff from the 85th percentile, 24-hour storm event for tributary drainage area
  - Infiltration BMPs
  - Retention basins
  - Capture and Use BMPs
- May include use of public lands with open space areas, e.g., parks, large parking lots, or vacant space

Example Regional EWMP Project – Retention and Infiltration Basin



Sun Valley Park Drain and Infiltration System


STRATHERN PIT
-10'
-41'
-35'
-20'
-30'
SUN VALLEY PARK

Centralized Structural BMPs

- Constructed structural practices intended to treat runoff from a contributing area of multiple parcels
- Generally installed on large public parcels or adjacent to storm drain outfalls and receiving waters
- Examples:
  - Bio-filtration BMPs
  - Constructed wetlands
  - Treatment BMPs low-flow diversion
  - Creek/River restoration


Tujunga Wash - Before


Tujunga Wash - After

Example Centralized Structural BMP – Dominguez Gap Wetlands Project

Before

After

Example Centralized Structural BMP – Marie Canyon Low Flow Diversion (LFD)

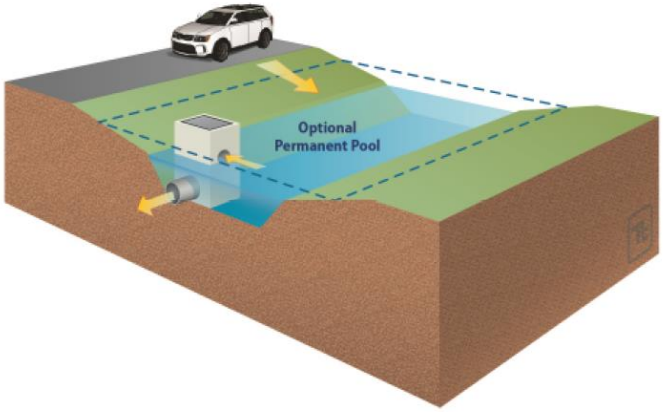

Marie Canyon LFD


ardney

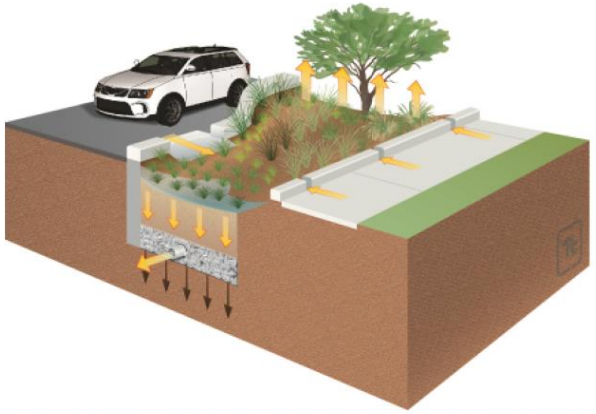
Distributed Structural BMPs

- Constructed BMPs that treat runoff close to the source and typically implemented at a single- or few-parcel level
- Green Infrastructure / Low Impact Development
  - Biofiltration
  - Bioretention
  - Bioswales / buffer strips
  - Green streets
  - Infiltration BMPs
  - Rainfall harvesting
  - Porous / permeable pavers
  - Planter boxes
- Flow-Through Treatment BMPs
  - Media / Cartridge filters
  - High-flow biotreatment
- Source Control Treatment BMPs
  - Catch basin inserts / screens
  - Gross solids removal devices
  - Hydrodynamic separators

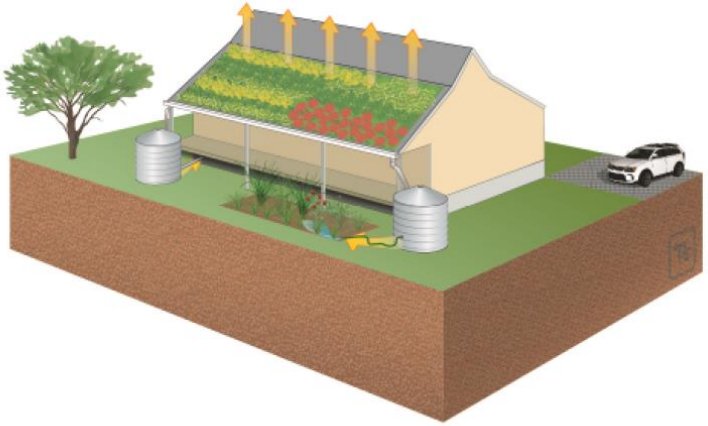
Distributed Structural BMP Proposed Projects



Typical distributed site-scale detention schematic (arrows indicate water pathways).



Typical distributed bioretention and biofiltration schematic showing underdrain option (arrows indicate water pathways).



Typical distributed rainfall harvest schematic (arrows indicate water pathways).

Valinda Greenway Project (2009)

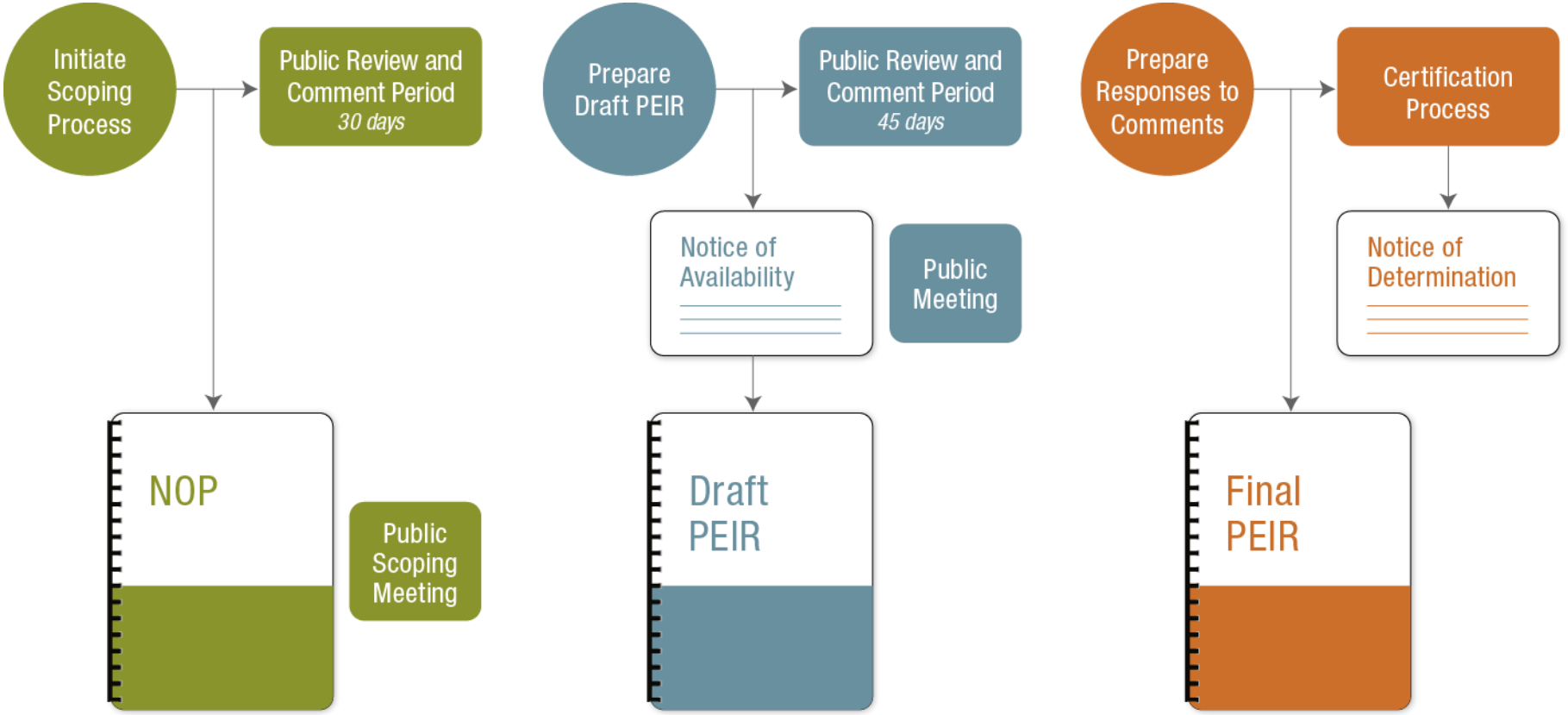
Non-Structural BMPs

- Prevent and/or reduce runoff and/or pollution close to the source
- Nonstructural BMPs part of overall EWMP implementation program – Examples:
  - Irrigation control
  - Covered trash receptacles
  - Replacement of brake pads & lead in wheel weights
  - Pet waste cleanup stations
  - Street sweeping
  - Catch basin cleaning
  - Downspout disconnect program

Program-Level Assessment

- Program assessment for LACFCD to submit EWMPs to LARWQCB
  - LARWQCB Responsible Agency for Approving EWMPs
- Used to evaluate a plan or program that has multiple components or actions
  - Focuses on the Effects of Implementing EWMPs
- Individual projects will be reviewed as they are further developed to determine what if any further review under CEQA is necessary

CEQA Process for an EIR



Issues to be Analyzed in the PEIR

- Aesthetics
- Air Quality
- Agriculture and Forestry
- Biological Resources
- Cultural Resources
- Geology, Soils & Seismicity
- Greenhouse Gas Emissions
- Hazards & Hazardous Materials
- Mandatory Findings of Significance
- Hydrology & Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population & Housing
- Public Services
- Recreation
- Traffic & Transportation
- Utilities & Energy
- Alternatives
- Cumulative Projects

PEIR Schedule Estimate

2014 - 2015	Deliverable/Milestone
August - September	• 30-Day public review of Notice of Preparation • Three scoping meetings
October - December	• Draft PEIR preparation
January - March	• 45-Day public review period for PEIR • Public review meetings
March	• Response to Comments • Final PEIR preparation
April	• Submission to Board of Supervisors for consideration of project approval and certification of PEIR

NOP Comments

- Comment period closes September 29, 2014 by 5:00 PM
- NOP and other project information can be downloaded from www.LACoH2Osheds.com
- Submit Comments
  - At scoping meeting: verbal or written comments
  - Or mail or email comments no later than September 29th to:

Gregg BeGell, P.E.
County of Los Angeles Department of Public Works
900 South Fremont Avenue, 5th Floor
Alhambra, CA 91803

gbegell@dpw.lacounty.gov

Attachment 5
Scoping Meeting Sign-In Sheets

EWMP PEIR Scoping Meeting **September 9, 2014 6-8PM**

Burton Chace Park—13650 Mindanao Way, Marina del Rey

SIGN-IN SHEET

Please Sign In (kindly print)

Name	Phone	Address, City, Zip Code
1. Rex Frankel E-mail address REXFRANKEL@yahoo.com		
2. KEN SUSILO E-mail address ksusilo@geosyntec.com		
3. E-mail address		
4. E-mail address		
5. E-mail address		
6. E-mail address		
7. E-mail address		
8. E-mail address		
9. E-mail address		
10. E-mail address		

EWMP PEIR Scoping Meeting **September 9, 2014 6-8PM**

LAC Dept. of Public Works—900 South Freemont Ave. Conf Rm. C, Alhambra

SIGN-IN SHEET

Please Sign In (kindly print)

Name	Phone	Address, City, Zip Code
1. Aidan Mousavi E-mail address: Amousavi@infeng.com	(951) 203-2585	
2. Bruce Hamamoto E-mail address: bhamamo@dpw.lacounty.gov	626 458 5916	
3. RAFAEL CASILLAS E-mail address: rcasillas@accessduarte.com	(626) 357-7931	City of Duarte 1600 Huntington Dr. Duarte 91010
4. SAM KOUTI E-mail address:	323 881-1200 x471	MONTEBELLO
5. Erik Conard E-mail address:		Culver City
6. E-mail address:		
7. E-mail address:		
8. E-mail address:		
9. E-mail address:		
10. E-mail address:		

EWMP PEIR Scoping Meeting **September 15, 2014 6:30-8:30PM**

Monrovia Community Center, K. Dalton Rm.—119 W. Palm Ave., Monrovia

SIGN-IN SHEET

Please Sign In (kindly print)

Name	Phone	Address, City, Zip Code
1. Anthony Ty E-mail address	(626) 932-5573	
2. Charles L Seitz E-mail address Charles.L.Seitz@gmail.com		491 Ida May Ln Sierra Madre 91024
3. Richard Schulhof E-mail address Richard.Schulhof	626 821 3231	301 N. Baldwin Arcadia 91001
4. Genevieve Osmena E-mail address gosmena@dpw.lacounty.gov	626-458-3978	900 S. Fremont Ave. Alhambra, CA 91803
5. JUN CERVANTES E-mail address jcervantes@ci.monrovia.ca.us	626-932-5571	600 S. MTN. AVE. MONROVIA, CA 91016
6. HUGO MALDONADO E-mail address hmaldonado@parks.lacounty.gov	626 523-1232	265 Clearleaf Drive BALDWIN PARK, CA 91706
7. E-mail address		
8. E-mail address		
9. E-mail address		
10. E-mail address		

Attachment 6
Scoping Meeting Public Comments

EWMP PEIR Scoping Meeting
Burton Chace Park, Marina del Rey
September 9, 2014

Comments and questions following the presentation by Tom Barnes, Project Director from Environmental Services, Inc.

- Will this program require 12 environmental impact reports (EIRs), one for each of the 12 watershed within the LACFCD that will be participating in the development of an Enhanced Watershed Management Plan (EWMP) or just one EIR for all 12 watersheds?
    - Only one EIR will be required.

- How does the EWMP relate to the TDML plans? Will this effort end up replacing the TDML implementation plans that have been developed for each of these 12 watersheds?
    - That question cannot be answered at this time.

- Each watershed has a specific pollutant type and a TMDL implementation plan designed to address that pollutant. Given the variety of different problem pollutants in each of these watersheds, the EWMP should not replace the TMDL implementation plans. Are these TMDL implementation plans now on hold while this EWMP is being developed?

- The reason there is no one else here tonight is that there are no specific projects being presented for us to analyze. Over the years, the same set of water quality improvement objectives are presented in every meeting but never with any specific projects. We need to know specifically what is being planned. The EIRs are just words but give us nothing specific.

- Regarding the Santa Monica Bay Plan, the City of LA did not meet water quality objectives. From 2006, the City has had 8 years to comply with the consent decree but it has never reached the mandated goals. We heard that it would take the equivalent of 25 Hyperion Treatment Plants to achieve these water quality goals, and at a tremendous cost. So, how can you ask for public input without presenting us specific projects to review including the costs associated with those projects? Today, we have agencies with plans that are never implemented and taxing us without telling us what we are paying for.

- You can have no plans without public involvement but there can be no meaningful public involvement without specifics.

- Questions that should be addressed during these meetings: Will the Plan (or proposed project?) comply with the TMDL implementation plans and what will it really cost to implement? We have heard costs as high as $150 billion for LA County to fully meet is water quality goals and that $3 billion is being spent on the Ballona Creek treatment wetlands. People want to know what bang

what they are really going to get for their buck since they have been repeatedly disappointed by past programs.

- You are heading into years of litigation from people who actually would support this project, if you do not provide more specific project information. The piece meal approach to solving these water quality projects does not cut it. Over the years we have seen politically motivated plans developed for each city council district rather than comprehensive plans that can realistically achieve the objectives of the Clean Water Act. What is needed now is for you to make a list of projects a part of the Notice of Preparation (NOP) and not wait for the EIR.

- What we want to know and it needs to be included in the EIR are the environmental impacts from specific projects. What we want to see is a plan that is designed to actually comply with the Clean Water Act and to see that funding is available for that plan, to see those dollars actually spent on the projects, and result in actual, tangible cleaning up of our water.

- If you already have a projects lined up, where can I go to see that list of projects?
    - A link is available which we will send to you.

- The process is faulty if the NOP does not contain a list of projects from the very start of this process.
    - The reason we are doing it this way is that the EWMP programs is being designed to launch the whole compliance effort.

LA County Flood Control District
Enhanced Watershed Management Programs PEIR
Scoping Meeting
September 9, 2014, 6pm

Oral Public Comments

Mr. Rex Frankel:

- How many EIRs will be involved?
- Is this a replacement for TMDL implementation plans?
- Are implementation plans on hold?
- There are no projects to comment on – this is why there is nobody here at the meeting
- Ballona Wetlands is a concern…is that an EWMP project?
- Has the City of LA made progress in implementing plans?
- Has had 8 years under consent decree, but there are no specific projects
- Public needs to know associated costs
- How can we comment without specifics?
- Ballona project is a primary concern
- You are proposing taxes without specifics…therefore there will be no public involvement
- What is it going to cost??
- Is Ballona going to be a water quality urban runoff dump?
- Specifics should be available in the NOP

EWMP PEIR Scoping Meeting Notes
Monrovia Community Center
September 15, 2014

Comments and questions from meeting attendees following the presentation.

- Do each of the 12 individual EWMP watershed areas have their own public process?
    - This environmental process is being conducted by the Flood Control District for their use to clear EWMP related projects. Each watershed can use the one being developed by the Flood Control District or create their own for a specific project.

- Are individual projects being identified in the EIR?
    - A list of projects with descriptions will be developed that that will be included in the final document. It will be a live document during the time of submittal. The analysis focuses on project types because the projects will vary.

- Is the MS4 permit in response to regulation?
    - It is in response to the Clean Water Act for municipalities.

- Will funding be identified through this process for some of the projects that may be implemented?
    - CEQA does not address cost unless it is related to change in the environment.

- If one wishes to advocate for particular projects within an EWMP what is the process to do this.
    - Write/include in your comment through EWMP process or through the permittee

- Will criteria vary from watershed to watershed, or will the same criteria be used for all?
- Is there interaction between this project and reclamation? How does this relate to recycled water? Do you talk to each other?
- Education should be part of the evaluation criteria. The value of education should be priority.

LA County Flood Control District
Enhanced Watershed Management Programs PEIR
Scoping Meeting
September 15, 2014, 6pm

Oral Public Comments

- Does each EWMP have its own public process?
- Will individual projects be identified in EIR?
- Is MS4 permit response (?) to legal action?
- Is funding attached to this process?
- How do I advocate for a project?
    - Through EWMP team?
    - Or EIR team?
- Are criteria the same for each watershed?
- How does this relate to recycled water programs?
- Is educational value of a project a high priority? It should be.

Attachment 7

State Clearinghouse Distribution of NOP

ESA

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Edmund G. Brown Jr.
Governor

Ken Alex
Director

Notice of Preparation

August 29, 2014

To: Reviewing Agencies

Re: Enhanced Watershed Management Programs (EWMP) Program EIR
SCH# 2014081106

Attached for your review and comment is the Notice of Preparation (NOP) for the Enhanced Watershed Management Programs (EWMP) Program EIR draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Gregg BeGell
Los Angeles County Flood Control District
900 South Fremont Avenue, 11th Floor
Alhambra, CA 91803

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2014081106
Project Title Enhanced Watershed Management Programs (EWMP) Program EIR
Lead Agency Los Angeles County Flood Control District

Type NOP Notice of Preparation

Description The development of the EWMP will involve the evaluation and selection of multiple watershed control measures or best management practices (BMP) types including non-structural and distributed, centralized and regional structural BMPs. These BMPs will be implemented to meet compliance goals and strategies under the 2014 MS4 Permit. Structural BMPs involve the construction of a physical control measure to alter the hydrology and/or water quality of incoming stormwater or non-stormwater. The three major functions for structural BMPs are infiltration, water quality treatment, and storage. These are three categories of structural BMPs, defined by the runoff area treated by the BMP and the required retention volume in accordance with the Permit.

Lead Agency Contact

Name Gregg BeGell
Agency Los Angeles County Flood Control District
Phone 626 300 3298 **Fax**
email
Address 900 South Fremont Avenue, 11th Floor
City Alhambra **State** CA **Zip** 91803

Project Location

County Los Angeles
City Los Angeles, City of
Region
Cross Streets Throughout Los Angeles County
Lat / Long
Parcel No. Various
Township **Range** **Section** **Base**

Proximity to:

Highways Various
Airports LAX, Burbank
Railways Various
Waterways Various
Schools Various
Land Use Various land uses throughout the County

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Flood Plain/Flooding; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Soil Erosion/Compaction/Grading; Toxic/Hazardous; Traffic/Circulation; Water Quality; Vegetation; Water Supply; Wetland/Riparian; Wildlife; Cumulative Effects; Other Issues

Reviewing Agencies Resources Agency; Coachella Valley Mountains Conservancy; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Wildlife, Headquarters; Department of Fish and Wildlife, Marine Region; Native American Heritage Commission; Santa Monica Bay Restoration; Caltrans, District 7; Air Resources Board; State Water Resources Control Board, Division of Water Quality; State Water Resources Control Board, Division of Water Rights; Regional Water Quality Control Board, Region 4; San Gabriel & Lower Los Angeles Rivers & Mountains Conservancy; Santa Monica Mountains Conservancy

Date Received 08/29/2014 **Start of Review** 08/29/2014 **End of Review** 09/29/2014

NOP Distribution List

County: LOS ANGELES

SCH# 2014081106

Resources Agency

- [■] **Resources Agency**
  Nadell Gayou
- [ ] **Dept. of Boating & Waterways**
  Nicole Wong
- [▨] **California Coastal Commission**
  Elizabeth A. Fuchs
- [ ] **Colorado River Board**
  Lisa Johansen
- [ ] **Dept. of Conservation**
  Elizabeth Carpenter
- [ ] **California Energy Commission**
  Eric Knight
- [ ] **Cal Fire**
  Dan Foster
- [ ] **Central Valley Flood Protection Board**
  James Herota
- [ ] **Office of Historic Preservation**
  Ron Parsons
- [■] **Dept of Parks & Recreation**
  Environmental Stewardship Section
- [ ] **California Department of Resources, Recycling & Recovery**
  Sue O'Leary
- [ ] **S.F. Bay Conservation & Dev't. Comm.**
  Steve McAdam
- [▨] **Dept. of Water Resources**
  Resources Agency
  Nadell Gayou

Fish and Game

- [▨] **Depart. of Fish & Wildlife**
  Scott Flint
  Environmental Services Division
- [ ] **Fish & Wildlife Region 1**
  Donald Koch
- [ ] **Fish & Wildlife Region 1E**
  Laurie Harnsberger
- [ ] **Fish & Wildlife Region 2**
  Jeff Drongesen
- [ ] **Fish & Wildlife Region 3**
  Charles Armor
- [ ] **Fish & Wildlife Region 4**
  Julie Vance
- [ ] **Fish & Wildlife Region 5**
  Leslie Newton-Reed
  Habitat Conservation Program
- [ ] **Fish & Wildlife Region 6**
  Tiffany Ellis
  Habitat Conservation Program
- [ ] **Fish & Wildlife Region 6 I/M**
  Heidi Sickler
  Inyo/Mono, Habitat Conservation Program
- [▨] **Dept. of Fish & Wildlife M**
  George Isaac
  Marine Region

Other Departments

- [ ] **Food & Agriculture**
  Sandra Schubert
  Dept. of Food and Agriculture
- [ ] **Depart. of General Services**
  Public School Construction
- [ ] **Dept. of General Services**
  Anna Garbeff
  Environmental Services Section
- [ ] **Delta Stewardship Council**
  Kevan Samsam

Independent Commissions,Boards

- [ ] **Delta Protection Commission**
  Michael Machado
- [ ] **OES (Office of Emergency Services)**
  Dennis Castrillo
- [■] **Native American Heritage Comm.**
  Debbie Treadway
- [ ] **Public Utilities Commission**
  Leo Wong
- [▨] **Santa Monica Bay Restoration**
  Guangyu Wang
- [ ] **State Lands Commission**
  Jennifer Deleong
- [ ] **Tahoe Regional Planning Agency (TRPA)**
  Cherry Jacques

Business, Trans & Housing

- [ ] **Caltrans - Division of Aeronautics**
  Philip Crimmins
- [ ] **Caltrans - Planning**
  Terri Pencovic
- [ ] **California Highway Patrol**
  Suzann Ikeuchi
  Office of Special Projects
- [ ] **Housing & Community Development**
  CEQA Coordinator
  Housing Policy Division

Dept. of Transportation

- [ ] **Caltrans, District 1**
  Rex Jackman
- [ ] **Caltrans, District 2**
  Marcelino Gonzalez
- [ ] **Caltrans, District 3**
  Eric Federicks – South
  Susan Zanchi - North
- [ ] **Caltrans, District 4**
  Erik Alm
- [ ] **Caltrans, District 5**
  David Murray
- [ ] **Caltrans, District 6**
  Michael Navarro
- [▨] **Caltrans, District 7**
  Dianna Watson
- [ ] **Caltrans, District 8**
  Dan Kopulsky
- [ ] **Caltrans, District 9**
  Gayle Rosander
- [ ] **Caltrans, District 10**
  Tom Dumas
- [ ] **Caltrans, District 11**
  Jacob Armstrong
- [ ] **Caltrans, District 12**
  Maureen El Harake

Cal EPA

Air Resources Board

- [■] All Other Projects
  Cathi Slaminski
  - [ ] Transportation Projects
    Nesamani Kalandiyur
  - [ ] Industrial Projects
    Mike Tollstrup
- [ ] **State Water Resources Control Board**
  Regional Programs Unit
  Division of Financial Assistance
- [ ] **State Water Resources Control Board**
  Jeffery Werth
  Division of Drinking Water
- [▨] **State Water Resources Control Board**
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- [▨] **State Water Resouces Control Board**
  Phil Crader
  Division of Water Rights
- [ ] **Dept. of Toxic Substances Control**
  CEQA Tracking Center
- [ ] **Department of Pesticide Regulation**
  CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

- [ ] **RWQCB 1**
  Cathleen Hudson
  North Coast Region (1)
- [ ] **RWQCB 2**
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- [ ] **RWQCB 3**
  Central Coast Region (3)
- [▨] **RWQCB 4**
  Teresa Rodgers
  Los Angeles Region (4)
- [ ] **RWQCB 5S**
  Central Valley Region (5)
  - [ ] **RWQCB 5F**
    Central Valley Region (5)
    Fresno Branch Office
  - [ ] **RWQCB 5R**
    Central Valley Region (5)
    Redding Branch Office
- [ ] **RWQCB 6**
  Lahontan Region (6)
  - [ ] **RWQCB 6V**
    Lahontan Region (6)
    Victorville Branch Office
- [ ] **RWQCB 7**
  Colorado River Basin Region (7)
- [ ] **RWQCB 8**
  Santa Ana Region (8)
- [ ] **RWQCB 9**
  San Diego Region (9)

- [ ] **Other** SAN GABRIEL AND LA RIVER WATERSHED CONSERVANCY
- [▨] ~~LAC~~ SANTA MONICA MTNS Conservancy

Last Updated 8/27/2014

Attachment 8

Comment Period Extension Letter

Dear Stakeholder and Interested Party,

The Los Angeles County Flood Control District (LACFCD) has extended the public comment period for the Notice of Preparation (NOP) of a Program Environmental Impact Report (PEIR) for proposed Enhanced Watershed Management Programs (EWMP). The extended NOP comment period will end October 29, 2014. The LACFCD is soliciting feedback from interested persons and agencies as to the scope and content of the environmental information to be evaluated in the PEIR. Comments may be submitted by regular mail or email to the address provided below.

Gregg BeGell, P.E.
County of Los Angeles Department of Public Works
Project Management Division II
900 South Fremont Avenue, 5th Floor
Alhambra, CA 91803
(626) 300-3298
gbegell@dpw.lacounty.gov

As Lead Agency, LACFCD has developed the NOP to notify Responsible and Trustee Agencies and interested parties that the LACFCD is preparing the PEIR for the proposed project. The Notice of Preparation (NOP) for the PEIR as well as an audio presentation describing the process can be accessed at: www.LACoH2Osheds.com. The audio presentation has been added to the web-site for those that were not able to attend the three Scoping Meetings held in September.

The LACFCD, the County of Los Angeles, and 84 incorporated cities within Los Angeles County (collectively referred to as Permittees) are covered under federal clean water regulations ("permits") for the discharge of urban runoff to waters of the United States. Under the 2012 Municipal Separate Storm Sewer System (MS4) Permit for Los Angeles County, Permitees have the option of implementing an innovative approach to Permit compliance through development of EWMPs. The LACFCD, along with participating cities, has opted to exercise this option through the development of 12 EWMPs in their respective watershed groups. These EWMPs will identify structural and non-structural strategies to achieve permit compliance. The EWMPs will be submitted to the Los Angeles Regional Water Quality Control Board (LARWQCB) for approval. Implementation of the EMWPs would occur following approval by the LARWQCB.

We will continue to keep you informed of the process.

Attachment 9

Public Comment Letters Received

ESA

October 16, 2014

Enrique Huerta
At-Large Stakeholder
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Downey, CA 90242
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(323) 573-0129

Gregg BeGell, P.E.
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RE: Public Comments: Notice of Preparation of a Draft Program Environmental Impact Report for Enhanced Watershed Management Programs

Dear Mr. BeGell:

Thank you for your efforts on the Notice of Preparation (NOP) for the Draft Program Environmental Impact Report for the Enhanced Watershed Management Programs (EWMP). I am confident your work will result in an informative and precise first tier final Program Environmental Report (PEIR) that is adequate, complete, and a good faith effort at full disclosure. The purpose of my comments, per Section 15168(c)(5) of the 2014 California Environmental Quality Act (CEQA) Statute and Guidelines, is to assist in the creation of a PEIR "that deals with the effects of the program as specifically and comprehensively as possible." Additionally, I realize that by doing "a good and detailed analysis of the program, many subsequent activities could be found to be within the scope of the project described in the program EIR, and no further environmental documents would be required."

I recognize and appreciate the herculean task involved for the Flood Control District and it is my sincere attempt to keep my comments relevant to the NOP. As such, I have attempted to draft my comments in a reader-friendly manner that identify the issue and propose a feasible solution(s). My comments only address the content of the NOP.

COMMENTS ON THE CONTENT OF THE NOP

1. Introduction

(Page No. 2) Please elaborate on the approval process. It would be informative if the role between the Los Angeles County Flood Control District (LACFCD) and the Los Angeles Regional Water Quality Control Board (LARWQCB) is further explained. The introduction does a good job explaining the steps involved in the EWMP process, but lacks clarity on the connection between the PEIR and LARWQCB. In particular, the sentence in mind states, "The LARWQCB is responsible for approval of the EWMPs in compliance with the MS4 Permit. Implementation of the EMWPs would occur following approval by the LARWQCB."

If the LARWQCB approves the EWMPs then who adopts the final PEIR? How does this PEIR fit into the responsibilities and mandates of the LARWQCB? All 12 of the EWMPs specify a date when the final EWMPs will be submitted (June 2015) to the LARWQCB, but no mention is made about the PEIR. Will the Lead Agency submit a EWMP packet on behalf of all 12 EWMPS and will the PEIR be a part of that packet? In addition, the NOI submitted to the LARWQCB by each Watershed Management Group (WMG) span two programs: the EWMPs 'and' Coordinated Integrated Monitoring Programs (CIMP). Does this PEIR also analyze the CIMP?

(Page 5) The opening paragraph states that "The primary approach to each of the EWMPs, as identified in the Draft Work Plans, includes identifying community-friendly, cost-effective methods of reducing urban runoff pollution and incorporating distributed and centralized structural and nonstructural watershed control measures for a multi-pollutant, multi-benefit approach." However, a review of all 12 EWMPs indicates that there was no cost/benefit analysis completed to substantiate the "cost-effectiveness" of these methods. Please identify any additional documentation supporting this claim.

(Page No. 5) Please clarify the use of the term "project." The final sentence in the first paragraph states, "The EWMPs will also evaluate multi-benefit regional projects that will retain (through infiltration or capture and reuse) the stormwater quality design volume (85th percentile storm for 24 hours) for the runoff from the contributing drainage area." Evaluating, I'm assuming site-level projects with regional benefits, at the PEIR level increases the dissonance between the goal of an EIR, as Section 21002.1(d) of the CEQA Statute states, "to consider the effects, both individual and collective, of all activities involved in a project," and the inherent collective geographic scope of the PEIR. I reviewed all 12 of the EWMPs and CIMPs. All 12 of the EWMPs do not identify projects currently in the works and no analysis is provided. The EWMPs seem to be evaluating plans and policies. Clarification of the term project would be beneficial in order to clearly understand the scope of this PEIR.

In addition, Section 21003 states that, "All persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical, and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment." In an effort to avoid the possibility of imposing an unfunded mandate on local cities and/or non-profit groups to undertake the second tier of this PEIR, the prudent use of public funds, and to promote a second tier CEQA process that is streamlined, I feel it would be beneficial to incorporate an analysis of current projects in the "pipeline."

This is critical because a review of the Greater Los Angeles County Integrated Regional Water Management (IRWM) database reveals over 190 water resources projects with regionally-significant benefits in the pipeline (Appendix A). The IRWM is a funding mechanism that encourages regional and local collaboration in the design of sustainable water resources

infrastructure. To date, regional agencies, cities, non-profits and community representative groups, have collaborated and submitted project proposals of regional significance. Not all of these projects incorporate BMPs, per say (many do), and many have already been deemed categorically exempt. Additional vetting would need to take place in order to identify projects in-line with a low impact development ideal to collaborate and integrate compliance strategies that are based on a multi-pollutant approach with a focus on green infrastructure that maximize the retention and use of urban runoff as a resource for recharging aquifers and for irrigation and other uses.

If this nexus to analyze the impacts of regional projects is deemed reasonably feasible, further vetting of the projects would be required to understand their CEQA status. The question is who conducts this analysis, the LACFCD or the WMGs? This is important to figure out since Section 15152(b) of the CEQA Statute and Guidelines states that, "Tiering does not excuse the lead agency from adequately analyzing reasonably foreseeable significant environmental effects of the project and does not justify deferring such analysis to a later tier EIR or negative declaration."

(Page 5) The second paragraph states, "The PEIR will provide a program-level assessment of the overall permit compliance effort, focusing particularly on the structural watershed control measures proposed in each of the 12 EWMP areas." The project list on Appendix A identifies projects aiming to implement watershed control measures throughout Los Angeles County. Many of these projects are categorically exempt, have concluded their own environmental assessment or already constructed, however, the database (L.A. County Water Plan) where I retrieved these does not clearly indicate this information. Furthermore, none of the 12 EWMPs under consideration undertook this task to see how the proposed physical changes within their EWMP may or may not comply with the goals and objectives of their

respective plans and policies. In an effort to, as Section 15152© describes, “avoid deferring the potential significant impacts to the second tier and possibly preventing the adequate identification of significant effects of the planning approval at hand,” it may be worthwhile to include this list in the PEIR analysis or have the WMGs revise their draft plans to incorporate this analysis.

1.1 Project Location

The description of the location could be augmented by elaborating on the environmental context. That is, adding maps identifying the tributaries, rivers, channels, etc. within the 12 watersheds could increase understanding of the local watershed functional characteristics. This detailed information is contained in most of the individual EWMPs. A reference to the website location of each respective EWMP could suffice.

Additionally, there is no reference to the types of soils that underlie the 12 EWMPS. The EWMPs provide a summary of these soil characteristics. A reference to the website location of each respective EWMP would be helpful. It is important to know the soil types and their respective infiltration rates in order to understand the feasibility of implementing certain structural BMPs. I realize that this may be covered in more depth under the Geology, Soils and Seismicity category, but there is no clear reference in the accompanying summary.

2. BACKGROUND

2.1 Stormwater/Water Quality

(Page 7) The first paragraph states, “Discharges may adversely affect receiving surface water quality with pollutants such as bacteria, nutrients (nitrogen and phosphorus), aluminum, copper, lead, zinc, diazinon, and cyanide. Aquatic toxicity, particularly during wet weather, is

also a concern. Stormwater and non-stormwater discharges of debris and trash are also a pervasive water quality problem in the Los Angeles region." It would be beneficial to add the types of pollution stemming from the natural environment (non-anthropogenic), too. What kind of pollutants exists in the soils being eroded from natural settings and vacant parcels of land?

2.2 Total Maximum Daily Loads

The final sentence in this paragraph states, "LARWQCB and United States Environmental Protection Agency (USEPA) have established 33 TMDLs that identify Los Angeles County MS4 discharges as one of the pollutant sources causing or contributing to these water quality impairments." Please elaborate on the NPDES permit process. Is there a need for discretionary approval of the EWMPs or PEIR by the USEPA? Is there a need for the USEPA to issue a TMDL or other permit? If so, is there a need to do a concurrent Environmental Impact Statement?

2.3 MS4 Permit

(Page 8) This section states. "The intent of the EWMP is to comprehensively evaluate opportunities, within the participating Permittees' collective jurisdictional boundaries, for collaboration among Permittees and other partners on multi-benefit regional projects that, wherever feasible, retain non-stormwater runoff and also address flood control and/or water supply." Has the United States Army Corp of Engineers (USACE) been a part of these collaborative efforts? Are any of their existing infrastructure being directly or indirectly impacted by the EWMPs? Is there a need for discretionary approval of the EWMPs or PEIR by the USACE? Is there a need for the USACE to issue a permit related to the EWMPs? If so, is there a need to do a concurrent Environmental Impact Statement?

3. Enhanced Watershed Management Plans

As mentioned in the first comment under the Introduction heading, please elaborate on the approval process. Specifically, how the PEIR fits into the LARWQCBs approval of the EWMPs.

4.1.1 Regional Structural BMPs

The second paragraph states, “Opportunities for Regional BMPs will be identified and evaluated within and across subwatersheds, with focus on the multi-benefit potential for capture and reuse of wet-weather flows within variable drainage areas.” What method and level of detail will be used to identify and evaluate BMPs? This paragraph goes on to state that, “Potential project locations may include areas with open spaces, whether they are within parks, large parking lots, or vacant spaces,” indicating that a geographically site-specific analysis is appropriate under this PEIR. Collectively, there is over 190 regional projects identified in Appendix A being proposed by the various members of the WMGs. Based on the site-specific potential project locations stated above, is it feasible to include an analysis of the project list (Appendix A)?

5 Potential Environmental Impacts

This section (nor the LACoH2Osheds website) does not reference the completion of an Initial Study per Section 15063©(1). How did the Lead Agency identify the effects determined not to be significant? Is there an explanation of the reasons for determining that potentially significant effects would not be significant?

Sincerely,

Enrique Huerta, M.S.

Appendix A

Comment Letter to the LACFCD: Draft PEIR

	Project Name	Project Proponent	Project Description
1	25 mgd Sea Water Desalinization Plant in West Basin	West Basin Municipal Water District	The project proposes to construct a 25mgd Seawater Desalination Plant in West Basin's service area for potable water use. First, a Demonstration Plant will be necessary to evaluate the water quality performance and treatment stability, assess efficient energy recovery devices, optimize operational performance utilizing full scale process equipment, and to acquire the necessary data to achieve regulatory compliance and approval. West Basin and its partners will perform the full battery of water quality analyses to ensure that the demonstration project meets all Federal and State Drinking Water Standards. With the knowledge gained by operating the Demonstration Plant, West Basin expects to move forward with the planning, design, and construction of a full scale 25,000 AFY seawater desalination and education facility. West Basin anticipates operating the Demonstration Plant for at least two years while plans are being completed and finalized for the full-scale plant. The Demonstration Facility is in design.
2	AMR Conversion Project	Los Angeles County Waterworks District No. 29	The project consists of replacing the older water meters in Waterworks District No. 29. The District maintains approximately 7,700 water meters in Malibu and Topanga. About 40 percent of the meters are older than 15 years and 30 percent are 20 years or older. Meters lose accuracy over time, representing unaccounted water consumption in the District. Older meters typically under-measure water use. Replacing old water meters with automated meter reading (AMR) meters will yield timely, reliable water consumption patterns for detecting leaks and producing accurate customer bills. Higher bills with higher water use volumes will alert District customers about their water consumption habits, which is expected to encourage conservation. The current practice is to replace meters as the meters stop functioning or become unreadable. About 20% of the water meters in Malibu and Topanga have been replaced with AMR meters.
3	Agoura Road Gap Recycled Water System Expansion	Las Virgenes Municipal Water District	The project would extend the existing recycled water line along Agoura Road to serve existing customers who use potable water for landscape irrigation. Pipeline for this project is estimated at 9250 feet of 8 inch pipe and would connect to existing recycled water pipelines on both east and west sides of the extension. This would connect the gap that exists between Reyes Adobe Road and Lewis Road and improve the system hydraulics and reliability of service to customers. The estimated maximum daily demand for the Agoura Road Extension is 73 gpm.

4	Agua Amarga Lunada Canyon Habitat Restoration	Palos Verdes Peninsula Land Conservancy & City of Rancho Palos Verdes	Restore 20 acres at Agua Amarga Reserve, to provide habitat for the Federally threatened Coastal California gnatcatcher, the Federally endangered Palos Verdes blue butterfly, and the rare cactus wren. A one-mile trail in the Reserve continues to the coast. A year-round flow of water is discharged to the head of Lunada Canyon via a County of Los Angeles storm drain; the water then flows below ground through the canyon, the course of an historic blue line stream, and re-emerges at its confluence with Agua Amarga Canyon, also a blue-line stream that flows into the Santa Monica Bay. Invasive plant species provide little water infiltration and threaten to spread to the pristine lower canyon. The project will remove invasive plants, restore 18 acres of riparian and coastal sage scrub; install 2 acres of cactus scrub in highly degraded fuel modification areas; improve trails and add trail signage. Interpretive signage will educate hikers about creating wildlife-friendly fuel modification zone.
5	Aliso Creek - Limekiln Creek Restoration Project	City of Los Angeles Bureau of Sanitation Watershed Protection Division	Stormwater runoff would be diverted from Aliso Creek and from Limekiln Creek and stormwater runoff generated on site will be treated. In addition to providing water quality benefits, the project will result in the creation of self-sustaining riparian woodland vegetation and other re-vegetated areas, as well as providing recreational opportunities to area residents.The site has an area of approx. 11.8 acres and is currently used as a flood control facility, provides open space, and serves as part of Vanalden Park.Wet weather runoff and dry weather runoff from an approx. 12,091 acres that drains to the confluence of Aliso Creek and Limekiln Creek is going to be captured and conveyed to the project site for treatment.On-site generated flows will also be captured and treated.Proposed BMPs to treat captured water:Low flow channel diversions and pumping:Pre-screening devices, Bioswales, Vegetated detention basins, Landscaping with native upland and riparian species and Installing decomposed granite pathways.
6	Alondra Regional Park	Successor Agency, City of Compton	Alondra Regional Park is a multi-benefit project that serves disadvantaged communities while meeting IRWMP water management objectives. The entire site is currently an empty 18-acre lot owned by the City of Compton. This proposal is for Phase I of the project and covers 12 acres on the southern half of the parcel. The park provides recreational opportunities while improving surface water discharges into the Dominguez Channel Watershed. The project site sits low on the drainage area and will capture 1.5AF of stormwater. The park features a swale and daylighted stream to remove nutrients and pollutants that otherwise flow to local waterways. The large biofiltration field will reduce peak flows, improve water quality and occasionally serve as a recreational field. Surface water quality improvements would help the region meet requirements under the Municipal Separate Storm Sewer System Permit. The project also includes native shrubs and trees that will increase habitat for birds, butterfly species and mammals.

7	Alternative Decker Canyon Recycled Water Extension	Las Virgenes Municipal Water District	As with the original Decker Canyon Recycled Water Extension pipeline route, this alternate would primarily serve the Malibu Golf Club, the largest potable water user in the LVMWD service area. The 2007 Master Plan advocated that serving the golf course with recycled water could be an important strategy for relieving eventual stress on the potable system. The longer alternative route used in this project would also serve other demands along the way. In addition to the golf club, significant recycled water demands are expected to come from a new development (Triangle Ranch) and conversion of the existing Medea Valley ranchettes to recycled water use. The project is projected to deliver 459 AF/Y of recycled water, offsetting the same amount of potable demand that would occur if the extension were not built.
8	Andrews Park Subsurface Storage, Use and Infiltration Project	City of Redondo Beach	The project will consist of a diversion, conveyance pipes, a gross solids removal device (GSRD), an irrigation storage tank, and an infiltration gallery. Dry- and wet-weather flows will be diverted from the existing storm drain up to the maximum diversion flow rate and will then enter the storage tank through the conveyance pipe and GSRD. Once the storage tank reaches a depth of 1.5 feet, flows will be pumped to be used for onsite subsurface irrigation. When the storage volume of the irrigation tank reaches capacity, runoff will flow via an overflow pipe into the infiltration gallery, where the water will infiltrate subsurface soils. When continual flows fill the infiltration gallery and irrigation storage vault to storage capacity, diverted flows will back-up through the diversion piping and prevent additional flow diversion until capacity is freed up due to irrigation use and/or infiltration losses.
9	Arroyo Seco Confluence Gateway	Arroyo Seco Foundation	The Confluence Gateway Greenway Program will restore a 1/3 mile stretch of urban land alongside the Arroyo Seco, in the Arroyo Seco Scenic Byway Corridor, into a riparian greenway and open space park with native landscaping and a bicycle/pedestrian path. Not only would the project embody a first step in enhancing river access and recreation opportunities, it would provide a key link between the planned Los Angeles River greenways at the confluence and the Metro Rail station in the historic Lincoln Heights neighborhood, thus enabling light rail and bicycle access to the Arroyo Seco and the Los Angeles River. Ultimately, the Arroyo Seco greenway is envisioned to extend to South Pasadena, and this initial segment at the confluence would be an important hub in the regional river parkway and bicycle trail network.

10	Arroyo Seco North Branch Creek Daylighting	Arroyo Seco Foundation	Naturalize north branch storm drain and restore stream through Sycamore Grove Park. Primary Objectives Addressed by the Project: By re-establishing an urban stream, this project addresses water quality, riparian habitat restoration, groundwater recharge, flood management, and public education. The Sycamore Grove Park site is approximately 800 feet long and 400 feet wide. This 8-acre site is located in northeast Los Angeles and situated west of the SR-110 (). This site encompasses Sycamore Grove Park and is bounded by South Avenue 49 to the northeast, the SR-110 to the east, medium density residential uses to the south, and North Figueroa Street to the west. Sycamore Grove Park is a landscaped area consisting of a large lawn, playground, and parking area. The North Branch tributary is contained within a storm drain beneath Sycamore Grove Park.
11	Baldwin Lake	Los Angeles Arboretum Foundation	For centuries the waters of Baldwin Lake have sustained human endeavor. A rich historic site, its role began in the Native America period when springs and marsh, precursors to today's lake, supported nearby habitation. In the late 19th Century, Elias Jackson Baldwin chose the Lake as the center for agriculture and land development that shaped the establishment of the east San Gabriel Valley. Today, as the centerpiece of the Los Angeles County Arboretum, the Lake is an educational and scenic resource serving hundreds of thousands of visitors. Looking to the future, Baldwin Lake is envisioned as a model for community-based environmental stewardship and regional approaches to water management and conservation. Ideally located at the edge of the Raymond Basin aquifer, the Lake offers great potential as the nexus for water management and ground water recharge for the Arboretum's 127 acres, as well as the surrounding urban watershed. Educational programming that interprets the history of the Lake, particul
12	Ballona Creek Water Quality and Beach Improvement & Beneficial Use Project	City of Los Angeles Bureau of Sanitation Watershed Protection Division	Project is to implement the valuable uses of stormwater and to improve the water quality in Ballona Creek Watershed. Ballona Creek Low Flow Treatment Facility (LFTF), also known as North Outfall Treatment Facility (NOTF), is one of several projects proposed in Ballona Creek TMDL Implementation Plans for Bacteria, Metals, and Toxic Pollutants. The LFTF includes a 1 million gallon storage facility and has the capacity to treat up to 150 cfs, including screening of coarse, fine sediments, and disinfection with sodium hypochlorite. NOTF was constructed in 1987 by City of Los Angeles. The project proposes to use the existing treatment facility and construct a low-flow diversion structure in Ballona Creek Channel to divert and treat full dry-weather flow and partial wet-weather flow. 65 percent of Ballona Creek Watershed (85 square miles) is located upstream of the Project, with average dry-weather flows ranging from 14 to 25 cfs. Treatment will include coarse screens, sedimentation, filtration, and disinfection.

13	Be A Water Saver Water Conservation Program	City of Burbank Water and Power	The City of Burbank proposes to expand and increase water conservation through the expansion of a comprehensive indoor/outdoor financial incentive program that will result in immediate and sustainable water savings. The proposed Rebate Program to install 1,300 HE toilets, replace 300,000 square feet of turf with native landscapes, capture and reuse rain water 3 million gallons of rain water with rain barrels, and increase water conservation education efforts will save an estimated 500 AF of water annually. Grant funding for the proposed project will facilitate greater water savings by providing funding for greater levels of participation sooner than would be realized under typical funding efforts. Furthermore, these benefits will be realized faster by utilizing a proven system for conservation, a truly ready to proceed project. This project has the potential to double participation levels.
14	Bette Davis Park Water Recycling Project	LADWP	This project will consist of planning, design, and construction of approximately 4,625 feet of new 8-inch PVC and Ductile Iron recycled water pipeline to extend Glendale's recycled water distribution system from the intersection of Flower St. and Grandview Ave. to Bette Davis Park. Approximately 4,300 feet of pipeline will be installed within Glendale's city right of way. Through an Agreement with the City of Glendale, this project will be designed and constructed by Glendale's contractors and LADWP will reinburse Glendale for the costs. This will reduce the City's potable demand for non-potable uses. This project will offset up to 75 AFY of potable water with recycled water.
15	Big Dalton Sluiceway Rehabilitation	Los Angeles County Flood Control District	This project will upgrade the sluiceway to function as a low level outlet for regulating flows under high reservoir pressure and repair various facility components for the dam. The existing sluice gate at the upstream end is to be replaced with a new heavy duty hydraulic actuated gate, the sluiceway is to be lined with new pipe for the entire length, and a throttling valve is to be installed at the outlet. Storm releases through the sluiceway will reduce the rate of sediment accumulation and prevent sediment deposits at the face of the dam. Incoming sediments during storm flows could be routed through the reservoir to restore a more natural sediment transport system and maintain reservoir capacity
16	Big Dalton Spreading Grounds Improvements	Los Angeles County Flood Control District	The proposed project will modify and motorize the diversion box at Big Dalton Spreading Grounds to better control flows taken into the facility. The spreading basins will be reconfigured to increase percolation rates and storage capacity. An intake will be constructed from Little Dalton Diversion Channel so that additional storm flows can be diverted to the facility. A proposed outlet from Metropolitan Water District's PM-26 imported water line to the Little Dalton Diversion channel will enable imported water to be recharged at the spreading grounds.

17	Big Rock Bypass	Los Angeles County Waterworks District No. 29	The project consists of constructing three 18-inch diameter bypass water pipelines approximately 1,500 feet in length within the areas of active landslides along Pacific Coast Highway. This bypass will serve as a permanent replacement of an existing 30-inch diameter water pipeline that has experienced significant breaks resulting in large water loss. The proposed pipeline will be raised to a shallow trench and protected by a reinforced concrete box covered with steel plates to provide quick access if any leakage occurs. In addition, 18-inch Flexible Expansion Joints will also be installed at several locations with the areas of the active landslides to prevent damage or rupture of pipelines from ground movement.
18	Big Tujunga Dam Spillway Dam	Los Angeles County Flood Control District	Construction of a dam within the spillway at Big Tujunga Dam to increase the maximum storage capacity of the reservoir by approximately 705 acre-feet.
19	Big Tujunga Reservoir Sediment Removal	Los Angeles County Flood Control District	The 2009 Station Fire was the largest fire in Angeles National Forest recorded history and burned over 160,000 acres before containment on October 16, 2009. Approximately 87% of the watershed tributary to Big Tujunga Reservoir was affected. On average, a watershed will take five years or more to recover from a forest fire burn. During this time, increased amounts of debris production are anticipated from the denuded ground surface. Based on the 2010-11 storm season surveys, the total amount of sediment in the Big Tujunga Reservoir is approximately 2 million cubic yards. The County of Los Angeles Department of Public Works on behalf of the Los Angeles County Flood Control District proposes a sediment removal project to permanently remove up to 4.4 mcy of sediment from Big Tujunga Reservoir. Sediment will be excavated and transported using low emission trucks or conveyor belt to Maple Canyon Sediment Placement Site adjacent to Big Tujunga Dam. The project will be completed over four years starting in the sum
20	Boulevard Pit Stormwater Capture Project	LADWP	Acquire and develop Boulevard Pit into a multi-use retention and recharge facility to enhance stormwater conservation.
21	Branford Spreading Basin Cleanout and Pump	Los Angeles County Flood Control District	Branford Spreading Ground has very low percolation rates compared to the Tujunga Spreading Ground directly across the Tujunga Wash Channel. This project will install a pump from Branford Spreading Ground to direct water into the Tujunga Spreading Ground leading to more groundwater recharge. In addition, the project will clean out the clogging layer at the bottom of basin, which will also improve percolation rates.

22	Broadway Neighborhood Stormwater Greenway Project	City of Los Angeles Bureau of Sanitation	In partnership with Water Replenishment District of Southern California and it's "Regional and Distributed Stormwater Capture Feasibiltiy Study," the proposed project will design and implement stormwater Best Management Practices (BMPs) in the City of Los Angeles with the primary goals of TMDL compliance and stormwater infiltration. Three levels of BMPs will be developed; local parcel based Low Impact Development (LID) for 8 acres (60 residential parcels), neighborhood scale LID for 12 acres (3 residential streets and 2 blocks of commercial streets), and a sub-regional scale facility for 30 acres of mixed land uses. The local and neighborhood BMPs will capture and infiltrate all dry-weather flow and up to the ¾ inch storm. The sub regional BMP will capture up to the 2 inch storm for 30 acres. The sub regional BMP will also receive dry-weather flows from 228 acres of mixed land uses. Designs will be standardized to remote widespread implementation.
23	Bull Creek Stormwater Capture	Los Angeles County Flood Control District	Historical records show that an annual average of 625 acre-feet of water passes though Bull Creek. All flows from Bull Creek are lost to the ocean via the Los Angeles River. This project proposes conserving the lost water by diverting flows from the new LADWP facility using a rubber dam and conveying flows through a pipeline to Pacoima Spreading Grounds where it would be captured and recharge the local aquifier.
24	Bull CreekLos Angeles Reservoir Water Quality Improvement Project	LADWP	Plan, design, and construct stormwater conveyance facilities for compliance with the Enhanced Surface Water Treatment Rule. Facilities will be designed according to standards adopted by Department of Water Resources, Division of Safety of Dams. Improvements include widening a portion of the Bull Creek Extension Channel, realigning a section downstream of the widening, construction of a new diversion structure and overflow structure, and improvements to inlet structures. The Los Angeles Reservoir spillway will be removed from service. Proposed design facilitates a future stormwater capture program.
25	Burbank Partnership Water Recycling Project	LADWP	The Burbank Partnership Water Recycling Project involves the planning, design, and construction of approximately 27,000 feet of recycled water pipelines in the North Hollywood area. The three individual segments that comprise the project are the Chandler Boulevard Bike Path segment, the Whitnall Dog Park segment, and the North Hollywood Park segment. These segments will connect to Burbank's recycled water distribution system at three separate connection points and will be served by recycled water treated at the Burbank Water Reclamation Plant. This project is expected to offset up to 285 AFY of potable water with recycled water.

26	Burbank Water and Power Recycled Water System Expansion, Phase 3	City of Burbank Water and Power	The third phase of the City of Burbank's recent recycled water system expansion. As a result of previous phases, over 20 miles of recycled water pipelines have been installed resulting in the distribution of over 2,300 AF of recycled water annually; amounting to 13% of the City's water demand by the end of 2014. The City will continue expanding its recycled water distribution to offset potable water use in this phase by constructing two new recycled water pipelines known as, the LA Equestrian Center (LAEC) and the Naomi pipelines. The LAEC is located on the borders of the cities of Burbank and Los Angeles consisting of landscape areas, stables, offices and corrals; the latter requiring dust control with water trucks. The Naomi pipeline would primarily provide recycled water to a very large commercial data center and smaller customers. Completion of these pipelines will increase recycled water distribution by an estimated 61 AFY, resulting in a direct and immediate potable water savings of 61 AF annually.
27	C Marvin Brewer Desalter Brackish Groundwater Facility Expansion	West Basin Municipal Water District	The Desalter currently has the capacity to extract up to 2,000 acre-feet annually of brackish water. In 2003 the old wells at the site were decommissioned and construction began in 2005 for the first replacement well. The facility became operational in 2006 at a reduced capacity using the new well and the original RO unit. The facility has not been operating to its full capacity since it came online again in 2007 because of water quality issues. Funding is also needed to correct the water quality problems in order to get the facility to its full operating capacity. The proposed 500 AFY capacity expansion will allow the facility to become operational at its full capacity of 2,000 acre-feet per year. The site is already owned by California Water Service Co. and leased by West Basin and is developed as a desalting facility. The expansion will include the installation of a new production well, and the addition of an acid pretreatment unit and a reverse osmosis treatment unit on the existing site.
28	CITYWIDE STORM DRAIN CATCH BASIN CURB SCREENS	CITY of CALABASAS	Installation of storm drain catch basin curb screens at all applicable locations citywide. These screens are the stainless variety approved curb by Los Angeles County. The purpose of the curb screens is to stop trash from entering the catch basins which eventually discharge into both the Los Angeles River and Malibu Creek watersheds. By implementing this project, City of Calabasas will be in compliance with the Trash TMDL both for LA River and Malibu Creek watersheds. Based on studies done, reduction in trash and debris loadings will also reduce Bacterial and sediment loading in the watershed. By implementing the project, disadvantaged communities downstream of Calabasas in Los Angeles River will benefit from cleaner water. The scope work consists of measuring all catch basin openings, drafting RFP with detailed specifications, soliciting proposals from the list of Los Angeles County's approved venders, negotiating contract, implementation/construction, monitoring and reporting.

29	Caballero Creek & Los Angeles River Confluence Park	Mountains Recreation and Conservation Authority	The project will convert a 1.55 acre vacant parcel at the confluence of the Los Angeles River and Caballero Creek into a publicly-accessible natural park with habitat restoration, paths, site furnishings, water quality improvements, waterfront-access, and educational amentities. The design utilizes an innovative mixes low-tech mechanical and biological methods to filter and infiltrate storm waters increases regional water quality. The project creates a multi-benefit park that provides ecosystem services as well as cultural services, like recreation and eco-tourism. The project concept was developed in partnership with the City and County of Los Angeles who have committed to retain ownership, maintenance and operation responsibilities while allowing the Mountains Recreation and Conservation Authority (MRCA) to oversee design and construction. Nearby Reseda High School will monitor the project and use it for hands-on learning and community service opportunities.
30	Camino San Rafael Recycled Water Project	Glendale Water & Power	This project will consist of design and construction of approximately 8300 feet & 6000 feet of new 4"and 8" PVC recycled water pipeline, respectively. The project also consists of installing a two booster stations. This project will extend Glendale's recycled water distribution system to provide recycled water for common area irrigation to the Camino San Rafael Homes. This project will offset up to 90 AFY of potable water with recycled water. This will reduce the City's demand on potable water.
31	Carson Regional Water Recycling Project	West Basin Municipal Water District	The Carson Regional Water Recycling Expansion Project includes the expansion of the existing recycled water treatment facility and the construction of several laterals. This is a new demand on the system and will require expansion of treatment process capacity and conveyance to include; lateral pipelines, pump stations, treatment units, storage tanks, and waste management facilities. The BP Refinery requires single-pass reverse osmosis treatment units. BP Refinery is estimating a need of 2,100 acre-feet per year (AFY). The project will be further expanded to serve customers within the City of Los Angeles' jurisdiction for the refineries in the port area. The City will need recycled water to satisfy a use of 9,300 AFY. The City is in the preliminary design stage.

32	Chase Street Stormwater Greenway	City of Los Angeles Bureau of Sanitation, Watershed Protection Division	The Project will provide a street-end interpretive area on Bull Creek at Chase Street, and install a Stormwater Greenway along Chase Street from the eastern street end on the north side right-of-way to Hayvenhurst, and on the north and south right-of-way to Gothic. Vegetated planters in the parkways will capture and infiltrate street runoff, and will provide storm water filtration, and tree shading. The Bull Creek street-end will feature a native landscape as habitat and a recreational rest stop along the channel, and will provide an interpretive site for wildlife selected and supported by the specific native planting used in the project. A channel diversion from Bull Creek, with a pre-filter and lift station, will transfer runoff through a pipeline to a local Sod Farm where it will be used to irrigate up to 30-commercial acres. The project will integrate water conservation goals (LADWP), Storm water objectives (BOS), Economic enhancements to city property (LAWA), & public health and recreation benefits.
33	Chemical Study - Rio Hondo	Los Angeles County Flood Control District	This project will install a chemical treatment system at the Rio Hondo Coastal Spreading Grounds to remove sediment fines from the water and improve the percolation rates. A Percolation Optimization Investigation (POI) report was done by Montgomery Watson Harza (MWH) in 2003 to evaluate the County's spreading grounds and the impact of suspended solids on percolation rates. The report made a number of recommendations and the recommendations will be implemented at the Rio Hondo flood control facility. The project will install a coagulant chemical feeder and mixer at the grounds intake. This will allow the silt in the stormwater to coagulate and settle prior the cleaner water to flowing into spreading grounds. When this occurs, the spreading grounds will be able to percolate more water, thus conserving and recharging more groundwater.
34	Chevy Oaks Recycled Water Project	Glendale Water & Power	This project will consist of design and construction of approximately 920 feet, 1900 feet & 2100 feet of new 4", 8" and 12" PVC recycled water pipeline, respectively. The project also consists of installing a small booster station. This project will extend Glendale's recycled water distribution system to provide recycled water for irrigation to the Chevy Oaks Homes. This project will offset up to 30 AFY of potable water with recycled water. This will reduce the City's demand on potable water.
35	City of Carson Rain Barrel Give Away Phase II	City of Carson, Development Services Department, Engineering Services Division	At completion of a prior grant, a modest amount of money remained unused. With the acquiesence of the granting agency, the City of Carson purchased 16 rain barrels and set up a website lottery system in order to award them to residents. The response was overwhelming and with no advertising over 100 contestents were disappointed to not receive a rain barrel. This proposal would lead to the purchase of an additional 1,000 rainbarrels (depending on cost and grant amount) to restock the lottery reserves. Advertising and management of the program would be provided as part of the City of Carson grant match. More information on Fiskar Rain Barrels is available at http://www2.fiskars.com/Products/Yard-and-Garden/Rain-Barrel-Systems

36	City of Monrovia Fire Department - Training Center Water Recycling Project	Upper San Gabriel Valley Municipal Water District	Upper District in cooperation with the City and Fire Department of Monrovia are submitting this project incorporating both dry and wet weather runoff capture, treatment and storage for the new Regional Training Center. Once collected, the fire training water and the 85th percentile of a 24 hour storm event (as required by the City's MS4 permit) will be treated before being discharged into storage holding tanks which will store the treated water for future reuse by the training facility. The objective is to offset the use of potable water at the facility, eliminate storm water discharge and capture wet-weather storm water runoff. Finally, if the wet-weather event is larger than the 85th percentile, then provisions are being considered to treat as much of the additional wet-weather storm water runoff via a natural infiltration gallery (bioswale) before being discharged into the City's storm water system.
37	Cogswell Dam Inlet/Outlet Works Rehabilitation Project	Los Angeles County Flood Control District	This project will consist of refurbishment and upgrades to the outlet works, tunnels, and repair of various facility components at Cogswell Dam. The project will increase operational effectiveness for flood control and water conservation. The project will involve: a complete overhaul of the dam's entire inlet/outlet works; upgrade on the electrical control equipment; repair of downstream facilities; structural repairs on the upstream facing slab; security upgrades; and other various repairs essential for maintaining and operating a flood control facility. The overall project intent is to improve Cogswell Dam for maintaining dam safety, increased efficiency and reliability of flood control operations, and enhancement of water conservation efforts.
38	Cold Creek Diamond Acquisition	Mountains Restoration Trust	The project will acquire 4.87 acres (APN 4455-021-040) of natural undisturbed open space within the existing 1348-acre Cold Creek Preserve in the Santa Monica Mountains National Recreation Area. The acquisition is part of the state-funded Cold Creek Restoration Plan designed to acquire 539.06 acres to protect the wild and scenic, perennial Cold Creek, the habitat linkage between Topanga State Park and Malibu Creek State Park, the values of Los Angeles County's Significant Ecological Area #9, and a future venue for environmental education, research, and recreation. The area includes significant oak, sycamore, and willow communities, supports a range of wildlife including mountain lion, gray fox and raptors. The pure waters once supported the federally-listed endangered southern steelhead trout.
39	Conservation Budget Based Tiered Rate Structure	West Basin Municipal Water District	This project helps our customer agencies to develop a water conservation, budget-based rate structure for their customers. The project is beneficial to West Basin's cities and retail water agencies because it provides a pricing structure that will incentivizes its customers to conserve water. This pricing method has been used in other parts of the State and has been successsful at reducing water usage and reqarding those who do so with lower rates on their water bill.

40	Conversion of 237th Street Sump Tributary to Machado Lakes for Nutrient and Toxics TMDL BMPs	City of Torrance	This project would convert the 237th St. Sump (4.5 acre-feet) into a retention/infiltration basin BMP for Toxics and Nutrient TMDL compliance and provide open spaces for wildlife habitat. This project would install diversion structures that would divert the first 4.5 acre-feet of stormwater from a 71 acre tributary area away from the system tributary to Machado Lake (Wilmington Drain) to be retained and infiltrated in this basin. Trash screens would be installed at the catch basin in the watershed by a seperate project. During the dry season the basin would remain an open space for wild life and retain urban run-off and nutrients form 71 acres. By diverting stormwater back into this basin, the City and County storm drain systems would have more capacity during rain events. This project would also increase groundwater recharge.
41	Creek Crossings Repairs	Los Angeles County Waterworks District No. 29	This project consists of repairing corroded and deteriorated sections of aboveground pipeline and developing a Corrosion Monitoring, Control, and Maintenance Program. The Waterworks District 29 transmission water pipeline runs along the Pacific Coast Highway in Malibu. The proposed pipeline repairs are located at eight creek crossings attached to bridge structures. The project will significantly prevent future leaks and breaks in the main transmission pipeline which is the primary source of water supply for Malibu and Topanga. The development of a maintenance program is essential to maintaining water supply reliability for the region.
42	Deauville Distributed Water Reuse Project	City of Santa Monica	The project would harvest stormwater and brackish groundwater for high level treatment and non-potable use around the City, replacing the use of imported potable water. The City would install a 1.3 million gallon storage tank next to the Santa Monica Pier, Deauville lot, to harvest stormwater from the Pier sub-watershed during rain events and brackish groundwater during dry periods. The project would have an optional overflow to an infiltration gallery. A saline extraction well would be installed in sand next to the storage tank. The project would install pre-treatment catch basin inserts in the drainage area or a centralized hydrodynamic separator-screening device to remove trash and debris from stormwater. Modular nanofiltration (NF) and a saltwater reverse osmosis (RO) treatment systems at the site would treat these stored local water resources to high quality for various uses around the City in the existing recycled water system. All concentrated brine by-product would be sent to the sanitary sewer.
43	Decker Canyon Recycled Water System Extension	Las Virgenes Municipal Water District	The Decker Canyon recycled water pump station, pipeline, and tank would furnish recycled water primarily to Malibu Country Club Golf Course and Tract 47962-Sycamore Canyon Estates near the pump station location and other nearby ranchettes. The project would comprise a high-lift pump station, ~23,000 linear feet of pipeline along Westlake Blvd and Decker Canyon Rd, and a 60-foot diameter concrete tank near the corner of Decker Canyon Rd and Mulholland Hwy. Approximately 229 AF of recycled water per year would be used by this project.

44	Del Rey Lagoon Water Quality Improvement Project	City of Los Angeles Bureau of Sanitation Watershed Protection Division	The Del Rey Lagoon Water Quality Improvement Project proposes to improve water quality by reducing the source and amount of fecal indicator bacteria in the Del Rey Lagoon and surrounding waterbodies such as the Santa Monica Bay and Dockweiler Beach. Project components include stormdrain systems, vegetated swales, irrigation system retrofit, and drainage modifications. Education and outreach to the public will also be included in the project scope. The vegetated swales are designed to capture, retain, and treat runoff from the adjacent residential, transportation, and landscaped area during dry weather and partially during wet weather. Existing irrigation system will be retrofitted with a smart irrigation system to reduce excessive irrigation runoff, thereby conserving water and reducing flow. Catch basins and storm drains will be installed to capture and divert excess wet-weather flow into the sewer system. Project also includes a nature viewing deck and educational displays that explain local flora-fauna.
45	Demonstration Gardens at Los Angeles County Fire Department Stations	West Basin Municipal Water District	This project involves the installation of drought-tolerant demonstration gardens at a minimum of five fire stations throughout the West Basin service area. These gardens will replace turf and/or concrete areas that are directly in front of the fire stations in order to provide a maximum visibility to the public. The gardens will be utilizing drought-tolerant and/or native plants that will be designed by professional landscape designers that specialize in climate-appropriate plans and trees. The main goal is to provide water conservation and runoff reduction measures and secondarily to educate the public about the measures so that they can create these spaces at their own homes. West Basin strives to reduce demands by implementing conservation and education programs throughout the communities it serves. This project aims to continue implementing outdoor water conservation/education programs to influence the public to create these spaces in their own homes.
46	Devil's Gate Dam and Reservoir Water Conservation	Los Angeles County Flood Control District	This project proposes to conserve stormwater by holding a reservoir pool behind Devil's Gate Dam and diverting the water to Eaton Wash Dam and Eaton Wash Spreading Grounds for poststorm groundwater recharge. A pump will be installed in the Devil's Gate Dam reservoir and water will be pumped out and conveyed through over 26,000 feet of pipeline to Eaton Wash Dam where it can be held for recharge at downstream spreading ground facilities.

47	Devil's Gate Reservoir Sediment Removal and Management Project	Los Angeles County Flood Control District	The 2009 Station Fire was the largest fire in Angeles National Forest recorded history and burned over 160,000 acres in the San Gabriel Mountains. Approximately 68% of the watershed tributary to Devil's Gate Reservoir was burned and as a result of the storms that occurred in the two wet seasons after the fire, sediment levels in the reservoir increased by more than one million cubic yards. The County of Los Angeles Department of Public Works on behalf of the Los Angeles County Flood Control District is planning a sediment removal project of up to 4 million cubic yards. A sediment removal project from behind Devil's Gate Dam is vital to the health of the Arroyo Seco flood control system. The goal of this project is to restore flood control capacity and establish a reservoir configuration more suitable for routine maintenance activities. The project will last approximately 5 years with construction starting in 2014.
48	Dominguez Channel Greenway Phase III	Los Angeles County Flood Control District	The project will consist of development of a native landscaped greenway and bikeway/pedestrian trail along the north side of the Dominguez Channel, between Vermont Av and Normandie Av. The project will include the following: access/maintenance road improvements for the new/improved bikeway; AC repair and replacement, slurry seal, American Disability Act (ADA) access ramps and bikeway/pedestrian signage and striping. Landscaping improvements include landscaping using native and drought-tolerant plants, irrigation, as-needed fencing repair/replacement. Educational/interpretive signage will also be included along the bikeway/pedestrian trail. A study is also recommended to consider additional pedestrian crosswalks with street lamp lighting for added safety. The project is currently on hold until the LACFCD completes a study to address deficiencies in its levees.
49	Dominguez Channel Trash Reduction Via ARS Installation in the City of Carson, CA	City of Carson, Development Services Department, Engineering Services Division	This project would install Automatic Retracting Screens (ARS) in the 1800 Storm Drain Catch Basins in the City of Carson. The proponents favor ARS to collect trash at street level where the trash can be quickly and cost effectively collected weekly by the existing City Street Sweeping Contractor and eliminates the need for other more costly and difficult to maintain downstream trash control systems. This project anticipates the continuing development of local and state waterway trash control efforts and alleviates the need to develop these expensive federal, state and local requlatory mandates. In comparison to other "downstream" trash control systems, the maintenance status of ARS is easily assessed and visible to the public, which is then able to report those locations where maintenance is warranted. Since ARS systems are located in the street sweeper path, maintenance (trash collection) occurs weekly, the trash stays dry and is less subject to the degradation that generates other pollutants (bacteria).

50	Dominguez Gap Spreading Grounds West Basin Percolation Enhancement	Los Angeles County Flood Control District	The proposed project will increase the percolation within the spreading grounds facility in order to increase groundwater recharge. The preliminary scope includes removing between 5 to 10-feet of clay sediment or installing vertical trenches/drains through the poorly draining strata in the facility's west basin. Preliminary studies have been conducted including boring samples which will be used to further develop conceptual plans and estimate project benefits.
51	Duck Farm River Parkway Phase 1 - Water Enhancement Project	Watershed Conservation Authority	The Duck Farm River Park, once a natural floodplain, has been disconnected from the natural processes of the river for decades as a result of urbanization & flood management. The Project reintroduces natural systems through a riparian/pocket wetland/seasonal streambed that improves both habitat and collect, filter & infiltrate stormwater flows onsite, as well as stormwater from the adjacent freeway in collaboration w/Caltrans. The project will transition irrigation source (annually forecasted to require 19M gallons) from imported, highly processed potable water to either local groundwater or recycled water as its source of supply. The public will benefit by being reconnected to nature, the river, & from educational & interpretive programming possible at the site. This change in supply will reduce greenhouse gases & the parks carbon footprint. Outdoor classroom & interactive educational experiences with children will inspire local youth to learn more about our watershed, water conservation & sustainability
52	Eaton Spreading Grounds Intake Improvements	Los Angeles County Flood Control District	The project will increase the intake and storage capacity of the Eaton Wash Spreading Grounds facility. This will improve the facility's ability to recharge storm water into the groundwater basin, thus greatly increasing the sustainable local groundwater supply that is vital for the region. Los Angeles County Flood Control District will replace the vehicle access slab with a metal grate over the spreading grounds drop intake channel and replace the current diversion flashboards with an inflatable gate within the intake channel. These improvements in Eaton Wash Channel will better direct flows into Eaton Wash Spreading Grounds, thereby increasing its intake capacity. Basin 1 will be enlarged to increase the facility's storage capacity. The project will include improvements to the property along Sierra Madre Boulevard that will significantly improve the sustainability, aesthetics, and safety of the public walkway and street view. Two driveway entrances will be improved by increasing the gate set-back fu
53	Eaton Wash Dam Inlet/Outlet Works Rehabilitation Project	Los Angeles County Flood Control District	The dam outlet works rehabilitation project involves the removal of the existing outlet tower and gate house. Once these major components are removed, construction of a gate valve, debris racks, hydraulic power system with a block house, control systems, modification of the outlet works structure, and rehabilitation of the gate valves will commence. It will provide necessary erosion protection measures and improve water quality during low-flow releases from the dam.

54	Elysian Reservoir Water Quality Improvement Project	LADWP	LADWP is planning to cover the existing Elysian Reservoir in order to meet US EPA water quality regulations. In April 2012, the Board of Water & Power Commissioners certified the Environmental Impact Report and approved the floating cover alternative. The project will install a flexible membrane floating cover over the existing water surface. Also included are supporting infrastructure (piping, valves, liner) and site improvements (roadway paving, fencing). The reservoir will operate in the same manner, providing potable storage for the distribution system. Construction is anticipated to being by 2015. In conjuntion with the project, a Community Parks Fund was established by the Board of Commissioners. The fund is to be used for unspecified public purposes related to community parks. Best efforts will be made to locate enhancements primarily in the Elysian Park area, working together with the community and other City of Los Angeles agencies.
55	Encinal Emergency Connection	Los Angeles County Waterworks District No. 29	The project consists of adding a new emergency water source to supply Waterworks District No. 29 through a new interconnection along Encinal Canyon Road at the District boundary with Las Virgenes Municipal Water District (LVMWD). This interconnection would bring water from Metropolitan Water District of Southern California through LVMWD to provide additional supply to the District during emergencies.
56	Foothill Municipal Water District Recycled Water Project	Foothill Municipal Water District	Three hydrologic areas were studied for the development of satellite recycled water facilities. Foothill Municipal Water District (FMWD) is pursuing the construction of one facility near Berkshire Place in La Canada at this time. This project will treat wastewater using a membrane bioreactor and recharge the product into the groundwater basin using infiltration galleries underneath athletic fields for multi-beneficial uses. Cal Poly Pomona has partnered with FMWD and is developing a model that will also capture stormwater for recharge using the same infiltration galleries. A conservation and education component has also been added. Landscaping will be done to showcase drought tolerant plants at both the MBR site and school site. Tours will be available so that students may learn about stormwater capture, groundwater, recycled water, conservation and the watershed since the Arroyo Seco and Hahamongna Park are across the street. This 0.250 MGD plant will save enough energy annually for 80 homes in So. Cal.
57	Freeway Runoff Infiltration Demonstration Project	City of Santa Monica	Divert runoff from a section of the Santa Monica Freeway within the City of Santa Monica, treat and infiltrate within an area near the freeway, either a landscaped area or parking lot. The infiltration zones will be augered, if necessary to by-pass poor permeable soils. There will be pre-treatment before infiltration to remove trash, oil/grease, sediments. It will be a passive system, i.e. gravity-fed and low into the system. The treatment-infiltration areas will be areas either already with a storm drain in the area, or the creation of new ones to harvest the runoff. The goal will be to keep runoff out of the existing storm drains and out of the storm drain system.

58	Glen Oaks Storm Water Capture Project	Los Angeles Beautification Team	The Prop O funded phase I, the installation of six bio-swales and 4 dry wells. This watershed in an average rainfall year brings 300 acre feet of water to Glen Oaks Blvd. Phase I was completed in January 2014 and is currently capturing an estimated 30 acre feet per year leaving approximately 270 acre feet available for storm water capture. Phase II will consist of an additional eight dry wells for an estimated $625,000, plus the cost of City Services (Design fees, permits and over site), that will capture an additional 40 to 45 acre feet annually.
59	Glendale Narrows Habitat Enhancement Project	Council for Watershed Health	The Glendale Narrows Riverwalk will provide approximately one mile of multi-use recreation along the Los Angeles River. There are several invasive plant species that are prevalent adjacent to the Riverwalk in the Glendale Narrows area of the Los Angeles River. These invasive plant infestations jeopardize the improvements to water quality and degrade habitat for native aquatic, avian, reptile, amphibian, and invertebrate species. In collaboration with the City of Glendale Community Services & Parks Department, the Council for Watershed Health (Council) proposes to develop and manage a 3-4 year restoration project to map, control, and monitor invasive arundo and invasive palm trees in the Riverwalk project area in the Glendale Narrows sections of the Los Angeles River. A native plant propagation and replanting effort is also proposed to reestablish riparian plants.
60	Goldsworthy Groundwater Desalter Expansion	City of Torrance	The Goldsworthy Desalter (Desalter) treats water from the saline plume in the West Coast Groundwater Basin for drinking water. The brackish water is treated to meet or exceed municipal drinking water standards through the use of a reverse osmosis system. The existing Desalter produces approximately 2,000 acre-feet of potable drinking water per year. When the Desalter was originally constructed in 2002, it was designed for expansion to over 5000 acre-feet per year of drinking water. In 2012 the Water Replenishment District of Southern California had a Feasibility Study for the Expansion of Desalter prepared for and approved by the U. S. Bureau of Reclamation. The expansion would involve the installation of additional reverse osmosis treatment units, construction of two additional source water wells, transmission mains and related appurtenance. The project also diverts waste water away from Santa Monica Bay where discharges cause TMDL violations for bacteria.

61	Groundwater Reliability Improvement Project (GRIP)	Water Replenishment District of Southern California	The overarching goal of the GRIP Recycled Water Project is to offset the current use of imported water by providing up to 21,000 acre-feet per year (AFY) of recycled water as a reliable supply source for groundwater basin replenishment via the Montebello Forebay within a reasonable timeframe. The source for the recycled water will be the Los Angeles County Sanitation Districts' San Jose Creek Water Reclamation Plant (SJCWRP). Tertiary treated recycled water, advanced treated recycled water (microfiltration, reverse osmosis and advanced oxidation), or a combination of the two will be conveyed from the SJCWRP via an existing pipeline or possibly a new pipeline for recharge in the Central Groundwater Basin through the Montebello Forebay Spreading Grounds or potentially a new injection well field.
62	Groundwater System Improvement Study	LADWP	The purpose of the Groundwater System Imrovement Study (GSIS) is to perform an independent study to identify, characterize, and evaluate emerging water quality constituents for the San Fernando Basin (SFB). This will include a comprehensive analysis that will provide recommendations in developing short and long-term projects, including the design and construction of groundwater treatment facilities, to maximize the use of the groundwater supply in the SFB. As a part of the GSIS, the LADWP will be drilling approxinmately 26 new groundwater monitoring wells, and perform short-term monitoring of existing and new wells, in order to obtain supplemental water quality data necessary for planning the groundwater treatment afcilities in the SFB.
63	Groundwater Treatment Facilities	LADWP	Design and construction of groundwater treatment facilities in North Hollywwod, Rinaldi-Toluca and Tujunga Wellfields in the San Fernando Basin (SFB), with a treatment capacity of 122,900 acre-feet per year.
64	Hansen Dam Golf Course Water Recycling Project	LADWP	Construct 4,500 feet of 20" pipeline, pumping station and pipe support bridge to deliver recycled water from the Tillman Plant to the Hansen Dam Golf Course and other potential future users. Water will be pumped from the Hansen Tank.
65	Hansen Dam Water Conservation Project	Los Angeles County Flood Control District	Hansen Dam, situated adjacent to the Tujunga Wash Channel in the San Fernando Valley, is a vital part of flood control efforts in the Los Angeles River drainage basin. The primary purpose of Hansen Dam is flood control; however the opportunity exists to increase water conservation and water supply through increased water recharge upstream of the dam. The current operation of the dam allows for an average annual water conservation of 17,100 acre feet per year. The Water Conservation Project, which involves utilizing the existing Debris and Flood Control Pools for water conservation purposes by raising their respective maximum elevations to allow for additional water supply storage, would increase the dam's water conservation ability. This extra supply storage would allow for dam releases to downstream spreading grounds and other facilities fo
66	Hansen Dam Water Conservation and Supply	The River Project	Change management regime of Hansen Dam to focus on water conservation by maintaining a water conservation pool within the reservoir during and subsequent to flood season.

67	Headworks East Reservoir	LADWP	onstruction of a 110 MG buried reservoir along with a 4 MW hydroplant at the former Headworks Spreading Grounds to replace the storage capacity lost when Ivanhoe Reservoir is removed from service. Needed to bring the Water System into comliance with state and federal drinking water regulations by the regulatory deadline of November 2014
68	Headworks Ecosystem Restoration	LADWP	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
69	Herondo Parking Lot and Beach Infiltration	City of Redondo Beach	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
70	Hoover, Toll, & Keppel School Recycled Water Project	Glendale Water & Power	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
71	Humboldt Stormwater Greenway	City of Los Angeles, Bureau of Sanitation/Watershed Protection Division	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
72	Improvements to Entradero Storm Drain Channel for Storm Water Infiltration and Habitat Restoration	City of Torrance, SMBBB TMDL Jurisdictional Groups 5 & 6	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
73	Improvements to San Gabriel River Diversion and San Gabriel River Water Committee Canal and Appurtenances	Azusa Light and Water	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
74	Indirect Reuse Replenishment Project	Upper San Gabriel Valley Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
75	Johnny Carson Park Stream Restoration and Park Revitalization	City of Burbank	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
76	Jordan Downs Daylighting Study	Multi-jurisdictional Agencies-LA City Housing and Public Works	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
77	LA River Sixth Street Bridge Greenway	City of Los Angeles, Bureau of Engineering	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
78	LVMWD Woodland Hills Golf Course Recycled Water Pipeline Extension	Las Virgenes Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
79	La Puente Valley County Water District Recycled Water Project	Upper San Gabriel Valley Municipal Water District & La Puente Valley County Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
80	Landscape Irrigation Efficiency Program (LIEP)	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
81	Large Landscape Irrigation Survey and Retrofit Project	Upper San Gabriel Valley Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
82	Las Virgenes Creek Bank Stabilization, Stream Restoration, Fish Migration Enhancement and Trail Connection	City of Calabasas	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
83	Live Oak Dam Inlet/Outlet Rehabilitation	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description

84	Live Oak Spreading Grounds Improvement Project	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
85	Lopez Spreading Grounds Improvement	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
86	Los Angeles River Center and Gardens Green Conference Center	Mountains Recreation and Conservation Authority	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
87	Los Angeles River Natural Park	City of Los Angeles Bureau of Sanitation/Watershed Protection Division	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
88	Los Angeles River Revitalization Master Plan 32 Mile Channel and Easement Greening	City of Los Angeles, Bureau of Engineering	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
89	Los Angeles State Historic Park Water Recycling Project	LADWP	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
90	Los Angeles-Burbank Groundwater System Interconnection	LADWP / Burbank Water and Power	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
91	Los Angeles-Glendale Groundwater System Interconnection	LADWP / Glendale Water and Power	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
92	Lower Los Angeles River Area Linear Water Storage Feasibility Study	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
93	Malibu Civic Center Area Recyled Water Delivery Project	City of Malibu	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
94	Malibu Civic Center Linear Park Phase 3	City of Malibu	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
95	Malibu Drought Preparedness Project: Graywater Reuse and Rainwater Harvesting	City of Malibu	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
96	Malibu Equestrian Center Runoff BMPs	City of Malibu	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
97	Malibu Rainwater Harvesting	City of Malibu	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
98	Malibu Road/Malibu Colony Stormwater Management	City of Malibu	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
99	Manhattan Strand 28th Street Subsurface Infiltration Trench	City of Manhattan Beach	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
100	Manhattan Wells Improvement	LADWP / Water Replenishment District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
101	Marsh Park, Phase II	Mountains Recreation and Conservation Authority	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
102	Medea Creek Restoration at Chumash Park	City of Agoura Hills	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
103	Miller Pit Spreading Basins	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description

104	MillerCoors Recycled Water Project	Upper San Gabriel Valley Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
105	Milton Street Park and Green Street project - Ballona Creek	Mountains Recreation and Conservation Authority	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
106	Mission Hills Green Belt	The River Project	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
107	Mission Wells Improvement	LADWP	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
108	North Hollywood Groundwater and Surface Water Benefits Study	Council for Watershed Health	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
109	North Hollywood Street Enhancement	City of Los Angeles	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
110	North Hollywood Transmission Corridor Easement Stormwater Capture Study	Council for Watershed Health	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
111	North Santa Monica Bay Firecamp 13 LID Retrofit	Los Angeles County Deprtment of Public Works	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
112	North Santa Monica Bay Probation Camp Miller LID Retrofit	Los Angeles County Department of Public Works	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
113	Northeast Gardena Recycled Water Line	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
114	Northeast Gardena Storm Water Quality Park, Recycled Water Line, and Landscape Makeover	Council for Watershed Health	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
115	Northeast Gardena Water and Landscape Makeover, Community Involvement Module	Council for Watershed Health	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
116	Oak Park Green Streets Urban Retrofit	County of Ventura	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
117	Oak Park Medea Creek Restoration	Mountains Restoration Trust	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
118	Ocean Friendly Garden (OFG) Program	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
119	Olive Pit Water Conservation Park	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
120	Oxford Retention Basin Multi-Use Enhancement Project	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
121	Ozone Park Runoff Treatment and ReUse Project	City of Santa Monica	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
122	Pacoima Dam Inlet/Outlet Works Rehabilitation Project	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
123	Pacoima Neighborhood Retrofit	The River Project	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description

124	Pacoima Reservoir Sediment Removal	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
125	Pacoima Spreading Grounds Improvements	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
126	Palos Verdes Peninsula Satellite Facilities Study	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
127	Palos Verdes Recycled Water Lateral	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
128	Pasadena Recycled Water Project	Pasadena Water and Power	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
129	Peck Water Conservation Improvement Project	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
130	Puddingstone Diversion Dam Inlet/Outlet Works Rehabilitation	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
131	Raw Wastewater Diversion to the City of Los Angeles	Las Virgenes Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
132	Recycled Water On-Site Retrofit Projects	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
133	Recycled Water Storage and Distribution System Expansion	Las Virgenes Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
134	Recycled Water Supply for Palos Verdes Golf Course	City of Palos Verdes Estates	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
135	Recycled Water Turnouts	Water Replenishment District of Southern California	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
136	Regional Water Supply Reliability Program Phase 1b	Puente Basin Water Agency	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
137	Residential Indoor Plumbing Retrofit Kits	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
138	Residential SMART Timer Retrofit "Plus" Program	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
139	Rio Hondo Coastal Basin Spreading Grounds - Sediment Removal from Basins	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
140	Rockhaven Well	Crescenta Valley Water District and Glendale Water and Power	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
141	SMURRF Distributed Water Reuse Project	City of Santa Monica	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
142	San Gabriel Coastal Basin Spreading Grounds Improvement Project	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
143	San Gabriel Dam Penstock Coatings and Valve Repair	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description

144	San Gabriel Valley Water Recycling Project (Phase I - Rose Hills Expansion)	Upper San Gabriel Valley Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
145	San Gabriel Valley Water Recycling Project - Membrane Bioreactor Treatment Plant	Upper San Gabriel Valley Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
146	San Jose Creek Water Reclamation Plant East Process Optimization Project	County Sanitation Districts of Los Angeles County	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
147	San Rafael Creek Restoration	Arroyo Seco Foundation	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
148	San Ramon Canyon Stormwater Flood Reduction Project	City of Rancho Palos Verdes	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
149	Santa Anita Dam Seismic Rehabilitation	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
150	Santa Fe Dam Water Conservation Pool	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
151	Santa Fe Spillway Basins	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
152	Sawpit Debris Dam Seismic Strengthening Project	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
153	Septic-To-Sewer Drinking Waterwell Protection Project	City of Los Angeles Bureau of Sanitation/Wastewater Engineering Services Division	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
154	Sepulveda Basin Sports Complex Multi-Purpose Open Space Project	City of Los Angeles, Bureau of Engineering	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
155	Sepulveda Basin Sports Complex Riparian Buffer	City of Los Angeles, Bureau of Engineering	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
156	Sheldon Pit	LADWP	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
157	Shoestring Park	Council for Watershed Health	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
158	Silver Lake Reservoir Bypass & Regulator Station	LADWP	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
159	Six Basins and Puente Basin Integrated Water Supply Project	Puente Basin Water Agency	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
160	South Coast Botanic Gardens	Los Angeles County Department of Public Works	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
161	South El Monte Recycled Water Expansion Project Package 1	Upper San Gabriel Valley Municipal Water District & San Gabriel Valley Water Company	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
162	South El Monte Recycled Water Expansion Project	Upper San Gabriel Valley Municipal Water District & San Gabriel Valley Water Company	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description

163	South Los Angeles County Groundwater Pipline Project	Water Replenishment District of Southern California	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
164	South Park Subsurface Infiltration Gallery	City of Hermosa Beach	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
165	Southeast Gardena Recycled Water Line	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
166	Stormwater Diversion to Walnut Avenue Sump	City of Torrance	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
167	Sun Valley Watershed Rory M. Shaw Wetlands Park Project (a.k.a. Strathern Wetlands Park)	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
168	Taylor Yard River Park Parcel G2	City of Los Angeles, Bureau of Engineering	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
169	Terminal Island WRP Advanced Water Purification Facility and Distribution System Expansion Project	LADWP	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
170	Terminal Island WRP Advanced Water Purification Facility and Distribution System Expansion	LADWP	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
171	Thousand Oaks Boulevard and Westlake Elementary Recycled Water System Extension	Las Virgenes Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
172	Topanga Connection Acquisition	Mountains Restoration Trust	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
173	Transfer Station Cover Structure and Site Improvements	City of Inglewood	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
174	Triunfo Community Park and Evanstar Park Recycled Water Extension	Las Virgenes Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
175	Trunk Sewer Rehabilitation Projects	Las Virgenes Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
176	Turf's Up Water Use Efficiency Program	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
177	Valley Generating Station Stormwater Recharge Project	LADWP	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
178	Van Ness and Slauson Infiltration Best Management Project	City of Los Angeles Bureau of Sanitation Watershed Protection Division	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
179	Verdugo Hills Stormwater Project	City of Los Angeles, Bureau of Sanitation/Watershed Protection Division	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
180	Vermont Avenue Storm Water Capture and Green Street Beautification Project	City of Los Angeles, Bureau of Sanitation/Watershed Protection Division	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description

181	Vermont Median Stormwater Park	Council for Watershed Health	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
182	Victoria Street CSUDH Water Reuse Concept Proposal	City of Carson	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
183	WRD Eco Gardener Program	Water Replenishment District of Southern California	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
184	Walnut Creek Spreading Basin Improvements	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
185	Water Budget Based Rate Implementation	Las Virgenes Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
186	Water Star Schools Pilot Program	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
187	Well 15	San Gabriel County Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
188	Well 7	City of Inglewood	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
189	Well No. 2 Rehabilitation	City of Inglewood	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
190	West Coast Basin Barrier Project	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
191	Westlake Filtration Plant Enhancement & Backbone Improvements	Las Virgenes Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
192	Westward Beach Road Bioinfiltration Project	City of Malibu	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
193	Westwood Neighborhood Greenway Project	City of Los Angeles Bureau of Sanitation Watershed Protection Division	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
194	Whiting St. and El Segundo Blvd. Dry Weather Diversion Structure	City of El Segundo	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
195	Whitnall HWY Powerline Easement Stormwater Capture Project	LADWP	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description

2195 Sherwood Road
San Marino, CA 91108
October 28, 2014

Mr. Gregg BeGell, P.E.
County of Los Angeles Department of Public Works
Project Management Division II
900 South Fremont, 5th Floor
Alhambra, CA 91803

Dear Mr. BeGell,

The purpose of this letter is to register my support for the restoration of Baldwin Lake as part of the Enhanced Watershed Management Plan (EWMP) for the Rio Hondo Watershed. The lake has experienced significant deterioration in recent decades as a consequence of surface run-off and its very future is very much at risk. Establishing the restoration of Baldwin Lake as a priority project as part of the EWMP will ensure its status as an important ecological and historic asset for generations to come.

Many thanks for attention to this matter.

Very truly yours,

George L. Ball

Paige Anderson

To: Tom Barnes
Subject: RE: Enhanced Watershed Management Plan

From: Jane Williams [mailto:janeann64@yahoo.com]
Sent: Wednesday, October 29, 2014 2:16 PM
To: Begell, Gregg - Consultant; Osmena, Genevieve
Subject: Enhanced Watershed Management Plan

As a volunteer at the L.A. County Arboretum, I would like to voice my support for the Enhanced Watershed Management Plan (EWMP) for the Rio Hondo Watershed, in which the Arboretum resides.

Every time I set foot in the Arboretum and look around me I see what can only be described as a treasure that belongs to the people of Los Angeles County. The condition of Baldwin Lake, the centerpiece around which the Arboretum exists is deplorable. It is in desperate need of restoration. Please do all that you can to see that this plan is instituted and that, through it, funding may be found to preserve Baldwin Lake.

Kenneth D. Hill. Ph.D., P.E.
1994 Meadowbrook Rd.
Altadena, CA 91001-3404
(626) 797-2089

October 27, 2014

Mr. Gregg BeGell, P.E.
County of Los Angeles Department of Public Works
Project Management Division II
900 South Fremont, 5th Floor
Alhambra, CA 91803

Subject: Baldwin Lake Restoration
Los Angeles County Arboretum and Botanic Garden

Dear Mr. BeGell:

As president of the L.A. County Arboretum Foundation and as a concerned citizen, I encourage you to restore Baldwin Lake at the Arboretum. I am sure you are aware that the lake has environmental significance to Los Angeles County including impact on water conservation and reclamation, regional ecology, educational opportunity, and historical importance.

The restoration of Baldwin Lake, including improvements to its function as an urban runoff collection basin, should be considered as a high-priority project within the Rio Hondo Enhanced Watershed Management Plan.

Please note the following:

1. Baldwin Lake, with a current capacity of just under four million gallons, if returned to its original depth, would provide over twelve million gallons of storage capacity. With modification, it could also serve as a significant infiltration basin for aquifer recharge.

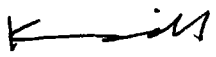
2. Tule Pond to the north, a canal roughly 600ft. in length, is the point of entry for the urban watershed, feeding directly into Baldwin Lake. Its size, shape and location offer great potential for water quality enhancement through modification as a bioswale.

3. The Lake is a key educational, scenic, wildlife, and historic resource serving over 330,000 visitors per year, including over 16,000 elementary school students on field trips. The project would provide an unrivaled opportunity to educate a broad public about regional water management, home and community water conservation, and the role of the Raymond Basin and other key water resources that sustain us.

4. The Los Angeles Arboretum Foundation, the County's non-profit partner in operating the Arboretum, stands ready to help leverage public dollars to realize the site's unique educational potential. **At our recent strategic planning meeting (October 25th) the restoration of Baldwin Lake was the top priority for the foundation over the next year.**

In sum, Baldwin Lake offers the ideal project to both enhance watershed function and serve the public with remarkable educational, ecological, and scenic benefits. It is an exceptionally strong candidate for inclusion in the Rio Hondo Enhanced Watershed Management Plan.

Sincerely,



Kenneth D. Hill, Ph.D., P.E.
President, L.A. County Arboretum Foundation

Gmail

Marsha Perez <marshaaperez@gmail.co

Baldwin Lake

2 messages

Marsha Perez <marshaaperez@gmail.com> Thu, Oct 23, 2014 at 4:45
To: gbegell@dwp.lacounty.gov

Dear Mr. BeGell,

I am a frequent visitor to our LA County Arboretum. Here I can find beauty, contentment and sollice for my busy lifestyle.

Baldwin Lake is one of our families favorite visiting areas. Here we find the solitude and the different forms of wildfowl very enjoyable.

Lately we find that our lake is becoming a disaster! The water is murkey, the banks are crumbling and it has a swamp like look in certain areas.

On behalf of my family and many friends and visitors I implore you to take advantage of the opportunity now available to restore the health and beauty of our beloved lake.

Thank you for your consideration.
Sincerely.
Marsha Perez

Marsha Perez

Paige Anderson

To: Tom Barnes
Subject: RE: ADDITIONAL COMMENTS ON L.A. County Enhanced Watershed Management Program, Notice of Preparation

From: Rex Frankel [mailto:rexfrankel@yahoo.com]
Sent: Monday, September 29, 2014 1:59 PM
To: Begell, Gregg - Consultant
Subject: L.A. County Enhanced Watershed Management Program, comments on Notice of Preparation

COMMENTS ON NOTICE OF PREPARATION FOR DRAFT PROGRAM EIR FOR ENHANCED WATERSHED MANAGEMENT PROGRAMS FOR L.A. COUNTY

September 29, 2014, 1:30 pm

From Rex Frankel, director, Ballona Ecosystem Education Project,
6038 west 75th street, L.A. CA 90045
310-738-0861, email: rexfrankel@yahoo.com

I understand why no one but myself attended the NOP hearing on September 9th in Marina Del Rey. You have no specific projects to analyze for environmental impacts. You are attempting to analyze the environmental impact of words, not specific actions. It is impossible to analyze the impacts of no stated physical projects, just as it is impossible to analyze those unstated projects' impacts on the environmental setting, ie., the proper baseline, because you have no specific locations for these unspecified projects. Thus all you can say is to analyze the entire county. The two most essential parts of an environmental analysis are missing here: specific projects and specific sites. You have the process all backwards here, and thus, commenting on this NOP in any specific manner is impossible.

Some background: In 2002, local governments settled lawsuits and agreed to consent decrees and promised to stop violations of bacterial health codes at our beaches by 2021. This agreement gave the public agencies an extension beyond the original deadline of 2013 but only if the projects created new parkland and river corridors that could catch and clean water before it fouled the beaches.

In 2006, L.A. City proposed its first big plan under this agreement, an Implementation Plan for the Santa Monica Bay Beaches watersheds. This plan was sent back for redrafting by the RWQCB as it only reached 2% of its target and thus, would not accomplish the goal in the consent decree.

Also in 2006, L.A. city proposed the Integrated Resource Plan which mainly focused on building 25 Hyperion-style urban runoff treatment plants which would have cost the average homeowner ratepayer $400 a month. This plan went nowhere.

In 2012, the County Supervisors tried to quietly approve a $300 million per year property tax hike to build a non-existent list of runoff cleansing and capturing projects. Howls of opposition arose and that plan went nowhere. The public wanted to know what they were paying for.

Now, you are finally starting to design the cleanup plan. But how can you ask the public to weigh in on the scope of the environmental analysis of that plan, when your description of that plan contains no specifics? Your stated plan to defer the environmental analysis of specific project impacts to when each one is up for approval thus ignores the cumulative impacts and therefore is "piecemealing", by starting major momentum of a project that is composed of many necessary parts, yet deferring analysis and the controversy to a multitude of separate EIRs and CEQA documents and public hearings, all the while public input is diffused. We never get to weigh in on whether we like the complete plan because the Program EIR has no specifics to arouse concern and the real project discussion is delayed until much later in a way that requires massive efforts by the public to keep track of the success of the big plan.

The people who will pay for this plan want to see the specifics before you raise our taxes to pay for it. We want expanded and unpaved river corridor parks. We do not want the plan to include converting existing wetlands and wildlife habitat into pollution dumps and sumps. We want what we were promised, not a lame compromise that puts the cleanup burden on existing public lands, parks and house front yards. We want a complete plan for us to judge whether it will accomplish its promises and goals before you produce an EIR, not the other way around.

Please put me on the notification list for all actions relating to this project. Thank you.

Paige Anderson

To: Tom Barnes
Subject: RE: ADDITIONAL COMMENTS ON L.A. County Enhanced Watershed Management Program, Notice of Preparation

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From: Rex Frankel [mailto:rexfrankel@yahoo.com]
Sent: Wednesday, October 29, 2014 5:28 PM
To: Begell, Gregg - Consultant
Cc: kathy.knight@verizon.net
Subject: ADDITIONAL COMMENTS ON L.A. County Enhanced Watershed Management Program, Notice of Preparation

ADDITIONAL COMMENTS ON EWMP NOP: October 29, 2014

The problem I have with a Program EIR for a "program" that is devoid of a list of all necessary specific projects is that it short-circuits the cumulative impacts review plus it facilitates illegal piecemealing of the many TMDL compliance projects. A program EIR can be allowed when the individual and currently unknown specific sub projects have "independent utility", thus building and analyzing them separately has no impact on the effectiveness of the other sub projects, nor does it make it mandatory that these other projects also be approved. That is not the case here. The goal of the EWMP and the sub projects is "to achieve permit compliance with RWLs" (NOP page 7 paragraph 3 and page 8, paragraph 1). Thus, all projects must be approved and successfully achieve their goals or the region will not be in compliance with the 2012 MS4 permit, the Federal Clean Water Act and the NPDES permits. If only some of the projects prove feasible and buildable, the construction of the others will not result in CWA compliance. That begs the question of is this project worthwhile if piecemealed at all? Will the beach only be clean in certain locations along the shore, while others will not be as a treatment strategy proved too expensive or technologically infeasible? If the taxpayers ultimately decide this project is too expensive, but certain parts are already built, does that mean that pulling-the-plug will result in non compliance and thus a waste of the taxpayers' dollars already spent? This s

How can the public know if the permits and Clean Water Act will be complied with if the approval of the individual pieces of the compliance strategy are broken up into numerous pieces each receiving their own separate CEQA review? All of this leads me to conclude that the specific projects must be reviewed and approved as part of a master plan project, with the public knowing the full cost of compliance, the full impacts of all projects and alternative policy choices. One specific alternative, distasteful as I find it, would be analysis of only building some projects and also enforcing no-swimming rules for three days after rainfall at beaches.

I will repeat the conclusion of my first NOP comments: The people who will pay for this plan want to all of the see the specifics before you raise our taxes to pay for it. We want expanded and unpaved river corridor parks. We do not want the plan to include converting existing wetlands and wildlife habitat into pollution dumps and sumps. We want what we were promised, not a lame compromise that puts the cleanup burden on existing public lands, parks and house front yards. We want a complete plan for us to judge whether it will accomplish its promises and goals before you analyze and mandate it with an EIR, not the other way around.

Rex Frankel

From: "Begell, Gregg - Consultant" <gbegell@dpw.lacounty.gov>
To: Rex Frankel <rexfrankel@yahoo.com>
Sent: Monday, September 29, 2014 2:26 PM
Subject: RE: L.A. County Enhanced Watershed Management Program, comments on Notice of Preparation

Rex

Thank you for your comments. It will be reviewed for use in the PEIR.

Yes, when people think of an EIR they are thinking of a project. This is a Program EIR, the main PEIR document contains some projects as examples but it's a program.

We are presently working on the PEIR, check our website for information and details. www.LACoH2Osheds.com. We will be posting the PEIR plus public review meetings on the website.

Gregg BeGell P E
Project Manager
Project Management Division II

From: Rex Frankel [mailto:rexfrankel@yahoo.com]
Sent: Monday, September 29, 2014 1:59 PM
To: Begell, Gregg - Consultant
Subject: L.A. County Enhanced Watershed Management Program, comments on Notice of Preparation

COMMENTS ON NOTICE OF PREPARATION FOR DRAFT PROGRAM EIR FOR ENHANCED WATERSHED MANAGEMENT PROGRAMS FOR L.A. COUNTY

September 29, 2014, 1:30 pm

From Rex Frankel, director, Ballona Ecosystem Education Project,
6038 west 75th street, L.A. CA 90045
310-738-0861, email: rexfrankel@yahoo.com

I understand why no one but myself attended the NOP hearing on September 9th in Marina Del Rey. You have no specific projects to analyze for environmental impacts. You are attempting to analyze the environmental impact of words, not specific actions. It is impossible to analyze the impacts of no stated physical projects, just as it is impossible to analyze those unstated projects' impacts on the environmental setting, ie., the proper baseline, because you have no specific locations for these unspecified projects. Thus all you can say is to analyze the entire county. The two most essential parts of an environmental analysis are missing here: specific projects and specific sites. You have the process all backwards here, and thus, commenting on this NOP in any specific manner is impossible.

Some background: In 2002, local governments settled lawsuits and agreed to consent decrees and promised to stop violations of bacterial health codes at our beaches by 2021. This agreement gave the public agencies an extension beyond the original deadline of 2013 but only if the projects created new parkland and river corridors that could catch and clean water before it fouled the beaches.

In 2006, L.A. City proposed its first big plan under this agreement, an Implementation Plan for the Santa Monica Bay Beaches watersheds. This plan was sent back for redrafting by the RWQCB as it only reached 2% of its target and thus, would not accomplish the goal in the consent decree.

Also in 2006, L.A. city proposed the Integrated Resource Plan which mainly focused on building 25 Hyperion-style urban runoff treatment plants which would have cost the average homeowner ratepayer $400 a month. This plan went nowhere.

In 2012, the County Supervisors tried to quietly approve a $300 million per year property tax hike to build a non-existent list of runoff cleansing and capturing projects. Howls of opposition arose and that plan went nowhere. The public wanted to know what they were paying for.

Now, you are finally starting to design the cleanup plan. But how can you ask the public to weigh in on the scope of the environmental analysis of that plan, when your description of that plan contains no specifics? Your stated plan to defer the environmental analysis of specific project impacts to when each one is up for approval thus ignores the cumulative impacts and therefore is "piecemealing", by starting major momentum of a project that is composed of many necessary parts, yet deferring analysis and the controversy to a multitude of separate EIRs and CEQA documents and public hearings, all the while public input is diffused. We never get to weigh in on whether we like the complete plan because the Program EIR has no specifics to arouse concern and the real project discussion is delayed until much later in a way that requires massive efforts by the public to keep track of the success of the big plan.

The people who will pay for this plan want to see the specifics before you raise our taxes to pay for it. We want expanded and unpaved river corridor parks. We do not want the plan to include converting existing wetlands and wildlife habitat into pollution dumps and sumps. We want what we were promised, not a lame compromise that puts the cleanup burden on existing public lands, parks and house front yards. We want a complete plan for us to judge whether it will accomplish its promises and goals before you produce an EIR, not the other way around.

Please put me on the notification list for all actions relating to this project. Thank you.

TRANSMITTAL

DATE: October 29, 2014

TO: Gregg BeGell, P.E.
County of Los Angeles, Department of Public Works/LACo Flood Control District
900 South Fremont Avenue, 5th Floor Alhambra, CA 91803
gbegell@dpw.lacounty.gov

CC: **Gloria Molina, LACo Supervisor**
Micheal Antonovich, LACo Supervisor
Sierra Club, Angeles Chapter, Water Committee
CCFAC Executive Director

FROM: **Dr. Tom Williams,**
Sierra Club, Angeles Chapter, Water Committee
Citizens Coalition For A Community
4117 Barrett Road, Los Angeles, CA 90032-1712
ctwilliams2012@yahoo.com, 323-528-9682

SUBJECT: **County of Los Angles, Enhanced Watershed Management Plan**
Scoping for Programmatic EIR

RE: **COMMENTS for Enhanced Watershed Management Plan PEIR CS-CH#2014081106**
Based on NOP and other project information downloaded from www.LACoH2Osheds.com.

Thank you for the opportunities to comment on the Notice of Preparation/Initial Study (NOP/IS) and other Scoping documents related to the proposed LA County Enhanced Watershed Management Plan (EWMP). Also thank you for the extension of the deadline for such comments, I believe it was very helpful for our commenters.

I could have continued for many more pages but I have been exhausted by the lack of real effort on the part of the preparers to make the Enhanced Watershed Program project meaningful, adequate, and complete and initially assess its secondary and tertiary impacts for knowledgeable public reviewers. Unfortunately the current NOP/IS and supporting documents appears to be an initial version of the vague program that has been developed by others, rather than a project or even program level DEIR preparation and is in need of major tecchnical additions, editing, technical, and other revisions. The Scoping documents are inadequate and incomplete for the purposes of Scoping, and Scoping documents must updated, revised, and reissued. If you need further clarifications and many more comments, I am available for discussions or correspondence with your staff.

Dr. TW: Background: 40+ years with Worldwide/California water resources, management plans, water supplies, water distribution and transmission systems, and remote water resources development, with preparation, review, and commenting for 300+ EIRs/EISs/EAs (1972 to Date) and with 30+ years in Parsons and URS Corporations, 12+ years with Dubai Govt./Dubai World, and 6+years with Sierra Club Angeles Chapter (Water, Transportation, and Oil and Gas Comtes) and Citizens Coalition for a Safe Community.

Thank you for the opportunity to review and comment. Our comments form two parts: general and specific comments, as shown below for the Section and the two segments.

I have tried to provide citations in comment format with Doc./page/paragraph. Where appropriate, text has been inserted from documents and emphasis added usually as **bolded/underlines**. ***Comments/Requests are added in bolded/italics.***

Dr. Tom Williams
323-528-9682

1. GENERAL COMMENTS

1-1 Scoping and Project/Program Purposes and Needs

The Program description for any DEIR or PDEIR must include the basis of the project: Purposes, Needs Goals, Objectives,

Absence of clearly defined purposes and need, goals and objectives, and priorities renders both the Program and Projects virtually non-reviewable and thereby inadequate and incomplete for public review and comment.

Without purposes and needs/goals and objectives, the public and reviewers cannot be expected to provide reasonable alternatives.

NOP/IS

p.1/par.2 The **purpose** of the MS4 Permit is to ensure Permittees are not causing or contributing to exceedances of water quality **objectives** or impairments of beneficial uses in the receiving waters of the Los Angeles region.

7/3 2.2 States are required not only to identify these “water quality limited segments” but also to prioritize such waters for the **purpose of developing Total Maximum Daily Loads** (TMDLs).

9/5 4.1.1 Capture and Use BMPs collect and use stormwater where applicable for **purposes** such as irrigation.

1/3 The overarching **goal** of BMPs in the EWMP is to reduce the impact of stormwater and non-stormwater on receiving water 2/1 quality and address the water quality priorities as defined by the MS4 Permit.

2/1 The development of each EWMP will involve the evaluation and selection of multiple BMP types, including nonstructural (institutional) and distributed, centralized, and regional structural watershed control measures, that will be implemented to meet **compliance goals and strategies under the 2012 MS4 Permit**.

8/7 The overarching **goal** of BMPs in the EWMPs is to reduce the impact of stormwater and non-stormwater on receiving water quality and to address water conservation and the water quality **priorities**.

11/3 The MS4 permit allows Permittees to customize MCMs to address high-priority water quality **goals** within their watersheds.

13/2 The PEIR will examine the project’s effects on global climate change and evaluate consistency of the project with the State’s GHG emissions reduction **goals**.

Scoping Meeting - Pic 4

• **Project Purpose:** MS4 Permit Compliance (R4-2012-0175)
– Each Permittee is responsible for its local MS4 compliance
– Permit compliance through EWMPs
• 12 NOIs submitted to LARWQCB
• Collectively prepared by participating Permittees
– Los Angeles Regional Water Quality Control Board (LARWQCB) approves EWMPs

1-2 PEIR Contents

1-2 Total lack of reference to assignment of significance and related mitigation.

NOP/IS lacks clear definition and presentation as to potential effects, scopes, and schedules of the program and related projects and their implementation, construction, and operations.

As a water resources project, the physical changes represent a small portion of the overall potential effect of the program and projects, and the NOP does not reflect the systemic nature of water resources effects on the environment.

The NOP and the PDEIR andd PjDEIRs must clearly provide a Scope for each basin, schedules, and related environmental sectors, a Schedule for "implementation", construction, and "operations" (?=forever).

The PEIR will -

"result from implementation of the projects and management actions identified in each EWMP
"result from the construction and operation of EWMP projects,
"focus on potential effects.
"assess the physical changes...including direct, indirect, and cumulative impacts.
"identify mitigation measures to minimize potentially significant impacts of each EWMP.
"anticipated to evaluate...following preliminary listing of environmental issues.

1-3. Environmental Resources, Setting, and Effects - Employment, Costs, Revenues, and Socieconomics

Employment, Costs, Revenues, and Socioeconomics Although mentions are made regarding economic and employment effects related to the Program and its projects, no costs-benefits, financials/funding sources, or other revenues assessments are included in the NOP.

Similarly, socioeconomics for major infrastructure programs and projects are closely related to "Environmental Justice" of those receiving benefits and those experiencing adverse effects directly through water-related operations and indirectly through direct/indirect payments for such effects and prospective benefits for those with much largely parcels and incomes.

5/1 The primary approach to each of the EWMPs, as identified in the Draft Work Plans, includes identifying community-friendly, **cost-effective methods** of reducing urban runoff pollution and incorporating distributed and centralized structural and nonstructural watershed control measures for a multi-pollutant, multi-benefit approach.

8/3 The EWMPs include multi-benefit stormwater management projects that may also provide environmental, aesthetic, recreational, water supply, and/or other community enhancements **cost-effective manner**.

11/1 Most institutional BMPs are implemented to meet Minimum Control Measure (MCM) requirements in the MS4 permit; MCMs are considered a subset of institutional BMPs. MCMs do not involve construction of facilities that physically remove pollutants, but **may involve costs associated with the procurement and installation** of items such as signage or spill response kits.

12.3 Air Quality Construction and operation of EWMP projects could cause air emissions...vehicle trips associated with **any increases in employment**....

14/3 Population...The PEIR will, however, identify current population and **employment projections**...

1-4 Controversies Regarding Program/Projects --- Stormwater Fees

Since the LACo Board of Supervisors have experienced significant controversy regarding the imposition of parcel fees for stormwater revenue and funding and has further created controversies regarding reassignment of parcel-area fees to parcel only fees, a thorough review of the economic, employment, and environmental justice issues must be addressed and defined for the NOP/IS,

As currently understood but avoided in Water agency and County presentations, an increase (e.g., x2+) in LACo stormwater fees would be applied on a parcel basis (no matter the size of parcel) as being proposed under the 2014 Measure P initiative which has no relationship to stormwater runoff and effects, compared to the current Recreation and Parks 1990s initiative which are based on parcel area (sqft) fees. For stormwater generation, area is directly related stormwater generation (e.g., 5000sqft may generate less runoff than 50,000sqft lots).

Therefore the NOP has not discussed the socioeconomic effects and related Environmental Justice issues related to the proposed program and the related controversy. A thorough assessment of all related revenue/costs issues must be presented in the PDEIR, including sources of revenues, revenue streams for life-of-project costs (especially for operations, maintenance, and replacements), basis for revenues (by parcel or by parcel-area), and Environmental Justice (which is not mentioned any where in the NOP/IS or presentation).

1-5 Mitigation Measures

Inconsistency uses and lack of definitions for most if not all related terms.

activities of "develop", identify", "proposed", or "evaluate".

to reduce potential, reduce the level, reduce potential adverse effect, any significant effects, to avoid,

are reduced or avoided, recommend

Vague generalities are presented and are so inconsistently applied within the same or related paragraphs as to render the entire presentation as useless.

The PDEIR must clearly present in matrices with links to discussions and appendices the project and program effects (quantifiedd/ranked), levels of significance for each sector/parameter, criteria levels for significances, proposed mitigations/compensations for significant effects, and a quantitative ranking of the effects levels following mitigation/compensation.

Lack of Mitigation

1-6 No measures are mentioned for many sectors but no basis could be established for such omissions, and comparable effects could be expected within these sectors similar to those that had need for measures mentioned.

12/2 Aesthetics ***No mitigation mentioned.***
12/4 Biology... ***No mitigation mentioned.***
13/2 Greenhouse Gases ***No mitigation mentioned***.
13/6 Land Use... ***No mitigation mentioned.***
14/4 Public Services... ***No mitigation mentioned.***
15/1 The PEIR will **evaluate potential energy consumption** associated with implementation of structural and nonstructural BMPs. ***No mitigation mentioned for Energy***

1-7 Mitigation, protection, and other measures and strategies are mentioned along with textual review of environmental sector but without any clear and concise statement of what they are, when they would be used, and how they could affect impacts, effects, and conditions. Mitigation measures in the Scoping NOP/IS are inconsistently mentioned as shown below.

Mitigation or compensation is required by CEQA for significant impacts.

Although mitigation is mentioned in the NOP/IS, mitigation and compensation are not mentioned in the Scoping Presentation slides; in reverse of "Alternatives", not mentioned in NOP/IS but present once in the Presentation.

Various terms - without definitions and consistent uses.

Protection measures mitigation strategies
significant effects
significant impacts
potentially necessary significant impacts
mitigate secondary effects of growth

As lead agency for the program LACo must clearly state the sole responsibility for thorough and consistent implementation in all projects of CEQA compliance and consistency of impact mitigation and compensation (including Environmental Justice and Socioeconomics).

The recirculated NOP/IS and PDEIR must provide a thorough presentation of:

Definitions of all related terms,
Process and quantified analyses for establishing the level of effects, mitigation, and remaining adverse effects and potential subjects of compensation,
Consistency of mitigations amongst all watersheds,
All current mitigation and compensation measures planned or anticipated by the Program and Project proponents, and
Explanation of absence of mitigation or compensation.

Examples

12/3 Air Quality...The PEIR...will **develop** mitigation measures if necessary to **reduce potential impacts**.
12/5 Cultural Resources Mitigation measures will be **identified** if necessary to **reduce the level of impact where possible**.
13/1 Geology... The PEIR will identify mitigation measures if necessary to **reduce potential adverse effects** to proposed facilities.
13/3 Hazards... Mitigation measures will be **proposed** if necessary to **reduce any significant effects** of the project...enountered during construction would be handled in accordance with applicable regulations.
13/4 Hydrology... The PEIR will identify stormwater quality **protection measures** required during construction and operation of proposed facilities. The PEIR also will **evaluate** potential impacts to flood control capacity and **develop mitigation strategies** if necessary **to avoid significant impacts**.
13/5 The PEIR will **evaluate** potential effects of increased storm water recharge and will identify mitigation measures if necessary to ensure that **potentially necessary significant impacts are reduced or avoided**.
14/2 Noise... The PEIR will **recommend mitigation strategies** to ensure that proposed EWMP projects implemented by local agencies comply with local noise policies and ordinances.
14/3 Population... The PEIR will...identify local planning jurisdictions with the authority to approve growth and **mitigate secondary effects of growth**.

14/5 Traffic... The PEIR will **identify mitigation strategies to reduce any potential effects**.
14/6 Utilities... The PEIR will **evaluate the project's potential to affect utilities** and will **identify mitigation measures to minimize the effects**.

1-8 Alternatives Although the project proponent has chosen to prepare an Environmental Impact Report, no mention is made regarding alternatives in the Initial Study/NOP. Only one reference to alternatives in all available related documents occurs in Slide 28, "Issues to be Analyzed" in the PEIR Scoping Presentation.

As the preparer included one reference to Alternatives, complete exclusion of such from the IS/NOP represents an arbitrary and incomplete presentation of CEQA documents. Without a clear concise statement of purposes and needs (goals and objectives, etc.), reasonable alternatives cannot be developed through the public participation and have not been developed by the watershed stakeholders.

LACo must revise and recirculate the NOP.

LACo must include a thorough description of Purposes and Needs for the project, quantification of such P&Ns, detailed quantified analyses as to how the Program achieves such P&Ns, basis for development of other alternative programs and projects within each alternative, and an assessment as to the best available alternative.

Some prospective alternatives include:

Single parcel fee assessment for 20-plus year full Administration, O&M and replacements;
Parcel-Area fee assessment for 20-plus year full Administration, O&M and replacements;
Hybrid Parcel-Area/Runoff fee assessment for 20-plus year full Administration, O&M and replacements;
Zero-Parcel Discharge Assessment and fee adjustment for 20-plus year full Administration, O&M and replacements;
Large-Parcel and Large Discharge Assessment and fee increments for 20-plus year full Administration, O&M and replacements;
Full capture and recharge of flows of >100cfs from all waterways;

1-9 Mitigation Monitoring and Report Plan The Draft Programmatic Environmental Impact Reports must include draft plans for the implementation, monitoring, and enforcements of the Mitigation Monitoring, and Reporting Plan for the Program. Also the PDEIR and draft Programmatic MMR Plan must provide the descriptions and process for funding, staffing, means, monitoring, enforcement, and reporting for the public for the monitoring of all Project-Level activities and compliance which must be subject to noticing/subscriptions, public reviews, and comment as part of the project-DEIR processes and not wait until the "Final EIR" is circulated for projects.

1-10 Scoping Report Because of the poor development of the NOP/IS and lack of coordination between the LACo efforts and those projected for the individual Project DEIRs and dispersed responsibilities for compliance and responsibilities, following the October 29th deadline for these comments, we request that LACo recirculate the entire NOP/IS, and if not done issue a Scoping Report ass to the LACo responses to comments and the table of contents for the PDEIR in order to establish the level of incorporation provided for the Scoping comments herein.

1-11 As indicated elsewhere many terms have been used and will be used inconsistently in the NOP/IS and Scoping Presentation and has created confusion and such must be avoided in the PDEIR.

The PDEIR must contain a single glossary and set of definitions for all terms for the PDEIR, and preparers and editors must assure full and specific compliance and consistency for all usage. Such a glossary may be included as an appendix with proper references throughout the PDEIR.

1-12 Program Compliance and Monitoring The LACo, Department of Public Works, Flood Control District is assumed to be in charge of the EWMP Program and has 12 groups responsible for specific areas and is related to the Los Angeles Regional Water Quality Control Board through the MS4 permit and sub-permits for water quality and flows within the Program regional and

area watersheds. No formal agreement has been presented as part of the NOP/IS and discussion seems to differ between the NOP/IS and the Scoping Presentation. As the LACFCD is scoping the PDEIR, reviewers must assume that only the LACo shall answer to the LARWQCB for compliance and monitoring for the next 20 years and that LACo shall have the powers, staffing, expertise, and funding to assure compliance of 12 different agencies/sub-permittees.

The Program description of the PDEIR must clearly and concisely present the administrative and operational arrangement and oversight assurance mechanisms to achieve implementation of all aspects of the MS4 permit and sub-permits and any and all CEQA and MS4 permit terms, conditions, mitigations, and compensations which may be related the Program and its projects. All contractual, regulatory, and judicial records must be provided as appendices and referenced within the text.

1-13 During a 20+ year Program, Implementation and Enforcement of all elements for 12+ different plans represent a major quality control/assurance and management and must be provided with adequate enforcement capabilities and support. The LACo, Department of Public Works, Flood Control District is assumed to be in charge of the EWMP Program and has 12 groups responsible for implementation, completion, and enforcement activities related to but in addition to those of the Los Angeles Regional Water Quality Control Board through the MS4 permit and sub-permits for water quality and flows within the Program regional and area watersheds.

No formal management and enforcement agreement has been presented as part of the NOP/IS and the Scoping Presentation. As the LACFCD is scoping the PDEIR, reviewers must assume that only the LACo shall answer to the LARWQCB for implementation and enforcements for the next 20 years and that LACo shall have the powers, staffing, expertise, and funding to assure implementation and enforcement with 12 different agencies/sub-permittees.

Fundamentally, will LACFCD or LARWQCB assess penalties against the sub-permittees for lack of timely implementation, achievement, and penalties.

The Program description of the PDEIR must clearly and concisely present the administrative and operational arrangement and quality-controls/assurance processes to achieve initiation and completion of all aspects of the MS4 permit and sub-permits and assignment of penalties , both financial and organizational for any and all CEQA and MS4 permits which may be related the Program and its projects. The LACFCD must also have the specific powers to assume direct authority over any projects under its responsibilities to the LARWQCB, and such must be documented within the PDEIR and PFEIR as appendices and referenced within the text

Environmental Sectors

2-1 No mention is made of "wetlands" which are often not included under either riparian (trees and bushes with dry land beneath) or aquatic habitats (open and standing water). Although this is one of the few specific habitats with federal and special protections, it is not mentioned which indicates the lack of background on the preparers part or a specific avoidance of controversial issues. The current NOP/IS lack competence, adequacy, and completeness for the public and stakeholder to review and comment upon the scope and specificity requireed for the PDEIR and subsequent PjDEIRs.

Revise and recirculate the entire NOP/IS and related documents.

The recirculation NOP/IS and the PDEIR must contain a general map of the Program and area maps for each of the projects with the following:
all existing delineated riparian, wetlands, and aquatic habitats;
related existing upstream and adjacent infiltration, recharge, and liquefaction areas;
potential groundwater movement patterns for 1500ft upstream and downstream of wetlands and riparian habitats; and
current surface water flows for 1500ft upstream and downstream of wetlands and riparian habitats.

12/4 **Biological Resources** Implementation of the EWMP projects could occur within existing sensitive habitats...result in changes to wildlife habitat, disruption of natural movement corridors, fragmentation or isolation of wildlife habitats, and disturbance of sensitive species during construction or operation...could alter **riparian and aquatic habitats**. The PEIR will evaluate the

potential for such facilities to impact biological resources and will also discuss local ordinances and state and federal regulations governing biological resources.

2-2 Geology and Groundwater Slight mention is made of groundwater, infiltration, recharge, and related liquefaction although much of the stormwater reduction must depend upon groundwater storage of captured runoff. The General Plan has not specific policies regarding changing the entire groundwater regime by massive expansion of septic tank/leach field system in another LACo project (i.e., Hauled Water Initiative) and this Programs LID and related recharge systems.

No information has been provided as to where recharge/infiltration areas are in relation to liquefaction zones and their drier extensions of alluvium and other permeable soils and bedrock.

The recirculation NOP/IS and the PDEIR must contain a general map of the Program and area maps for each of the projects with the following:

All geologically potential recharge/infiltration areas, existing recharging project, and proposed recharging areas and of all areas with more than 10 septic tanks per any 100 acres;

Currently delineated liquefaction areas and geologically similar surface materials which are not now considered as liquefiable due to lack of high groundwater tables;

Known groundwater levels and elevations of stream beds downslope of the groundwater tables; and

Anticipated local and project recharging rates.

12/6 5. Geology, Soils, and Seismicity Southern Los Angeles County is a seismically active region. The proposed EWMP BMPs would require **construction** of structural BMPs that could be subject to potential seismic and geologic hazards, including 13/1 ground shaking, **liquefaction**, soil stability conditions, soil erosion rates, expansive soils, and landslides. Policies provided in the County's General Plan and applicable standard County requirements will be evaluated as to their effect of **mitigating or avoiding any potentially significant effects.**...

13/4 Hydrology and Water Quality Implementation of the proposed EWMP BMPs may change **local drainage patterns at construction sites**,...which could affect the hydrology, hydraulics, and/or water quality of streams, rivers, and other receiving waters...The PEIR also will evaluate potential impacts to flood control capacity and develop mitigation strategies if necessary to avoid significant impacts.

13/5 Implementation of the proposed EWMP BMPs would likely result in **increased infiltration and recharge** in various locations throughout the EWMP watersheds. **Such activities could affect local groundwater levels and water quality**. The PEIR will evaluate potential effects of **increased storm water recharge** and will identify mitigation measures if necessary to ensure that potentially necessary significant impacts are reduced or avoided.

2-3 Hazards and Groundwater Recharge No mention is made regarding the influence of groundwater movements upon hazards and hazardous materials in the soil/alluvium/bedrock context. Groundwater plumes have cause major expansions of underground contamination from storage tanks and contaminated soil. Contaminated groundwater in the northeastern and western San Fernando Valley and elsewhere are known to be migrating based on the groundwater flows and basin pumping for water supplies.

Current LACo policies do not reflect the responsibilities and liabilities of LACo approved watershed plans causing the changes of hazardous materials migration induced by groundwater flows fed by LACo and agency approved recharge/infiltration projects.

No information has been provided as to where recharge/infiltration areas, groundwater flows, and known or expected contaminated groundwater and soils, and potential routes for plume migration through extensions of alluvium and other permeable soils and bedrock.

The recirculation NOP/IS and the PDEIR must contain a general map of the Program and projects' area maps with the following:

Known subsurface contaminated soils and groundwater and active remediation sites;

Known pump/treat/use or pump/treat/recharge projects;

Current and expected recharge/infiltration areas; and

Known/Expected groundwater migration pathways.

13/3 **Hazards and Hazardous Materials** Excavation during construction of proposed EWMP BMPs could uncover **contaminated soils or hazardous substances** that pose a substantial hazard

to human health or the environment...The policies provided in the County's General Plan and any standard County requirements will be evaluated as to their effect of mitigating or avoiding any potentially significant effects.

2-4 Socioeconomics (including Total and Disposal Incomes, Employment, Existing Infrastructure Costs, and Property and Other Revenues)

No information has been provided as to any socioeconomic setting, effects, and mitigation for the program or the projects.

The recirculation NOP/IS and the PDEIR must contain an overall socioeconomic review of the Program area and separate project area for each of the projects with the following:

- ***Educational, employment, age/gender, and other socioeconomic parameters to characterize the areas for the Program and its projects;***
- ***Incomes, Current Taxes and Fees, and other Ability-To-Pay parameters to characterize the areas for the Program and its projects;***
- ***Existing Special Assessment Districts and Other Urban Costs for Local Residents and Property Owners for the Program's and its projects' areas; and***
- ***State and conditions of existing infrastructure and potential for major future projects in the same Program's and its projects' areas.***

2-5 "Environmental Justice" No information has been provided as to any information regarding the setting, effects, and mitigation for the program or the projects related to issues of Environmental Justice.

The recirculation NOP/IS and the PDEIR must contain an overall and specific projects' Environmental Justice review of the similar major infrastructure programs and projects as related to those receiving benefits and those experiencing adverse effects directly through water-related operations and indirectly through direct/indirect payments for such effects and prospective benefits for those with much largely parcels and incomes.

2-6 Mitigation Monitoring and Reporting Plan The Draft Programmatic and Draft Project Environmental Impact Reports must include tiered draft plans for the implementation, monitoring, and enforcements of the Mitigation Monitoring, and Reporting Plan which will be subject to public review and comment as part of the DEIR processes and not wait until the "Final EIR" is circulated.

ELIZABETH BYRNE DEBREU
777 Arden Road
Pasadena, California 91106

October 8, 2014

Mr. Gregg BeGell, P.E.
County of Los Angeles Department of Public Works
Project Management Division II
900 South Fremont, 5th Floor
Alhambra, CA 91803

Via Email: gbegell@dpw.lacounty.gov

Re: Restoration of Baldwin Lake

Dear Mr. BeGell:

I write to urge you to make the restoration of Baldwin Lake a high priority as you lead the effort to create the EWMP for the Rio Hondo Watershed.

The restoration of Baldwin Lake, including modifications to the depth of the lake and adaptation of Tule Pond as a bioswale, would enhance Baldwin Lake's water quality and give it a more significant water collection function while simultaneously enhancing its scenic, educational, and historic value at the center of the Los Angeles County Arboretum and Botanic Garden.

The restored lake would also provide an exceptional opportunity to educate the public about regional water management, home and community water conservation, and the role of the Raymond Basin and the other water resources in sustaining us. It is a key resource that serves over 330,000 visitors per year, including more than 16,000 elementary school students on field trips.

As a member of the board of the Los Angeles Arboretum Foundation, the County's non-profit partner in operating the Arboretum, I stand ready to help leverage public dollars to realize Baldwin Lake's unique potential to provide direct public benefit in a multitude of ways. It is the ideal project both to enhance the watershed function and serve the public with remarkable educational, ecological, and scenic benefits.

I respectfully submit that the County include the Baldwin Lake in the Rio Hondo Enhanced Watershed Management Plan.

Very truly yours,

Elizabeth Byrne Debreu
Board Member, Los Angeles Arboretum Foundation

DEPARTMENT OF TRANSPORTATION
DISTRICT 7-OFFICE OF TRANSPORTATION PLANNING
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
PHONE (213) 897-9140
FAX (213) 897-1337
www.dot.ca.gov

Serious drought.
Help save water!

September 29, 2014

Mr. Gregg BeGell
County of Los Angeles Dept. of Public Works
Project Management Division II
900 South Fremont Avenue, 5th Floor
Alhambra, CA 91803

Re: **Enhanced Watershed Management Programs**
Notice of Preparation
IGR#140912FL
Vic.: LA/Various watersheds locations

Dear Mr. BeGell:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The proposed project will prepare a Program Environmental Impact Report (PEIR) for the project identified, such as the 12 separate Enhanced Watershed Management Programs (EWMPs); it will be prepared as a collective effort among the Los Angeles County Flood Control District (LACFCD) and the applicable agencies in each respective EWMP.

We would like to remind you that storm water run-off is a sensitive issue for Los Angeles and Ventura counties. Please be mindful that projects need to be designed to discharge clean run-off water.

Any work to be performed within the State Right-of-way will need an Encroachment Permit and any transportation of heavy construction equipment and/or materials which requires the use of oversized-transport vehicles on State highways will require a Caltrans transportation permit. We recommend that large size truck trips be limited to off-peak commute periods. In addition, a truck/traffic construction management plan is needed for this project.

If you have any questions, please feel free to contact me at (213) 897-9140 or project coordinator Frances Lee at (213) 897-0673 or electronically at frances.lee@dot.ca.gov.

Sincerely,

DIANNA WATSON
Branch Chief, Community Planning & LD IGR Review

cc: Scott Morgan, State Clearinghouse

MWD
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Executive Office

September 24, 2014 **Via Mail**

Mr. Gregg BeGell
Project Management Division II
Los Angeles County Flood Control District
900 South Fremont Avenue, 5th Floor
Alhambra, CA 91803

Dear Mr. BeGell:

Notice of Preparation for the Draft Program
Environmental Impact Report for the Enhanced Watershed Management Programs

The Metropolitan Water District of Southern California (Metropolitan) has reviewed the Notice of Preparation of a Draft Program Environmental Impact Report for Enhanced Watershed Management Programs (EWMPs) in Los Angeles County, California. The Los Angeles County Flood Control District (LACFCD) is the Lead Agency. An EWMP is one regulatory compliance mechanism for stormwater management under the Los Angeles County Municipal Separate Storm Sewer System (MS4) Permit adopted in 2012 (hereafter referred to as 2012 LA County MS4 Permit). The LACFCD proposes the development of 12 separate EWMPs in their respective watershed groups. The potential benefits from the EWMPs include the following: (1) improved water quality; (2) reduction in the impairment of water bodies for Designated Beneficial Uses; (3) promotion of water conservation and supply; (4) enhanced recreational opportunities; (4) support for public education opportunities; (5) improved local aesthetics; and (6) management of flood risks. This letter contains Metropolitan's comments to the proposed project as a potentially affected agency.

Metropolitan is a public agency and regional water wholesaler. It is comprised of 26 member public agencies serving approximately 18.4 million people in portions of six counties in Southern California, including Los Angeles County. Metropolitan's mission is to provide its 5,200-square-mile service area with adequate and reliable supplies of high-quality water to meet present and future needs in an environmentally and economically responsible way. Metropolitan owns and operates numerous facilities within Los Angeles County including pipelines, a water treatment plant, power plants, dams, reservoirs, and other infrastructure associated with our water conveyance and distribution system.

The proposed project may impact Metropolitan's ability to dewater its pipelines. As part of a proactive maintenance and refurbishment program, Metropolitan periodically dewaters its treated and raw water pipelines prior to inspection, maintenance, or repair activities. Such periodic inspections and repairs are essential to prevent pipe failures and subsequent damage from high-pressure water releases. These water discharges are short-term in nature and are acknowledged

by the LA County Regional Water Quality Control Board as having a *de minimus,* or low-threat, impact to the environment and aquatic life. As such, these discharges are categorized as "Conditionally Exempt Essential Non-Storm Water Discharges" under the 2012 LA County MS4 Permit.

Metropolitan requests that LACFCD and its co-permitees continue to allow for periodic discharges by potable water systems into the MS4 under the proposed EWMPs. These "Conditionally Exempt Essential Non-Storm Water Discharges" are specifically called out as permissible under the 2012 LA County MS4 Permit. Per the conditions set forth in the 2012 LA County MS4 Permit, Metropolitan will continue to follow industry-accepted best management practices (BMPs) for its potable water system discharges. BMPs include, but are not limited to, the following: (a) advanced notification of LACFCD 72 hours prior to all planned discharges greater than 100,000 gallons and as soon as possible after an unplanned discharge greater than 100,000 gallons; (b) dechlorination; (c) monitoring for pollutants of concern; and (d) recordkeeping (e.g., date, time, and location of discharge, discharge pathway, receiving water, total number of gallons discharged, BMPs used, etc.).

Based on a review of the proposed project boundaries, the proposed project has potential to impact Metropolitan facilities. Metropolitan must be allowed to maintain its rights-of-way and requires unobstructed access to its facilities in order to maintain and repair its system. Any future design plans associated with this project should be submitted to the attention of Metropolitan's Substructures Team. Approval of the project should be contingent on Metropolitan's approval of design plans for portions of the proposed project that could impact its facilities.

Detailed prints of drawings of Metropolitan's pipelines and rights-of-way may be obtained by calling Metropolitan's Substructures Information Line at (213) 217-6564. To assist the applicant in preparing plans that are compatible with Metropolitan's facilities and easements, we have enclosed a copy of the "Guidelines for Developments in the Area of Facilities, Fee Properties, and/or Easement of The Metropolitan Water District of Southern California." Please note that all submitted designs or plans must clearly identify Metropolitan's facilities and rights-of-way. We appreciate the opportunity to provide input to your planning process and we look forward to receiving future documentation and plans for this project. For further assistance, please contact Ms. Michelle Morrison at (213) 217-7906.

Very truly yours,

for Deirdre West
Manager, Environmental Planning Team

MM:rdl
J:\Environmental Planning&Compliance\COMPLETED JOBS\September2014\EPT Job No. 20140944MIS

Enclosures: Planning Guidelines and Map of Metropolitan Facilities in Project Vicinity

Guidelines for Developments in the Area of Facilities, Fee Properties, and/or Easements of The Metropolitan Water District of Southern California

1. Introduction

a. The following general guidelines should be followed for the design of proposed facilities and developments in the area of Metropolitan's facilities, fee properties, and/or easements.

b. We require that 3 copies of your tentative and final record maps, grading, paving, street improvement, landscape, storm drain, and utility plans be submitted for our review and written approval as they pertain to Metropolitan's facilities, fee properties and/or easements, prior to the commencement of any construction work.

2. Plans, Parcel and Tract Maps

The following are Metropolitan's requirements for the identification of its facilities, fee properties, and/or easements on your plans, parcel maps and tract maps:

a. Metropolitan's fee properties and/or easements and its pipelines and other facilities must be fully shown and identified as Metropolitan's on all applicable plans.

b. Metropolitan's fee properties and/or easements must be shown and identified as Metropolitan's with the official recording data on all applicable parcel and tract maps.

c. Metropolitan's fee properties and/or easements and existing survey monuments must be dimensionally tied to the parcel or tract boundaries.

d. Metropolitan's records of surveys must be referenced on the parcel and tract maps.

3. Maintenance of Access Along Metropolitan's Rights-of-Way

a. Proposed cut or fill slopes exceeding 10 percent are normally not allowed within Metropolitan's fee properties or easements. This is required to facilitate the use of construction and maintenance equipment, and provide access to its aboveground and belowground facilities.

b. We require that 16-foot-wide commercial-type driveway approaches be constructed on both sides of all streets crossing Metropolitan's rights-of-way. Openings are required in any median island. Access ramps, if necessary, must be at least 16-feet-wide. Grades of ramps are normally not allowed to exceed 10 percent. If the slope of an access ramp must exceed 10 percent due to the topography, the ramp must be paved. We require a 40-foot-long level area on the driveway approach to access ramps where the ramp meets the street. At Metropolitan's fee properties, we may require fences and gates.

c. The terms of Metropolitan's permanent easement deeds normally preclude the building or maintenance of structures of any nature or kind within its easements, to ensure safety and avoid interference with operation and maintenance of Metropolitan's pipelines or other facilities. Metropolitan must have vehicular access along the easements at all times for inspection, patrolling, and for maintenance of the pipelines and other facilities on a routine basis. We require a 20-foot-wide clear zone around all above-ground facilities for this routine access. This clear zone should slope away from our facility on a grade not to exceed 2 percent. We must also have access along the easements with construction equipment. An example of this is shown on Figure 1.

d. The footings of any proposed buildings adjacent to Metropolitan's fee properties and/or easements must not encroach into the fee property or easement or impose additional loading on Metropolitan's pipelines or other facilities therein. A typical situation is shown on Figure 2. Prints of the detail plans of the footings for any building or structure adjacent to the fee property or easement must be submitted for our review and written approval as they pertain to the pipeline or other facilities therein. Also, roof eaves of buildings adjacent to the easement or fee property must not overhang into the fee property or easement area.

e. Metropolitan's pipelines and other facilities, e.g. structures, manholes, equipment, survey monuments, etc. within its fee properties and/or easements must be protected from damage by the easement holder on Metropolitan's property or the property owner where Metropolitan has an easement, at no expense to Metropolitan. If the facility is a cathodic protection station it shall be located prior to any grading or excavation. The exact location, description and way of protection shall be shown on the related plans for the easement area.

4. Easements on Metropolitan's Property

a. We encourage the use of Metropolitan's fee rights-of-way by governmental agencies for public street and utility purposes, provided that such use does not interfere with Metropolitan's use of the property, the entire width of the property is accepted into the agency's public street system and fair market value is paid for such use of the right-of-way.

b. Please contact the Director of Metropolitan's Right of Way and Land Division, telephone (213) 250-6302, concerning easements for landscaping, street, storm drain, sewer, water or other public facilities proposed within Metropolitan's fee properties. A map and legal description of the requested easements must be submitted. Also, written evidence must be submitted that shows the city or county will accept the easement for the specific purposes into its public system. The grant of the easement will be subject to Metropolitan's rights to use its land for water pipelines and related purposes to the same extent as if such grant had not been made. There will be a charge for the easement. Please note that, if entry is required on the property prior to issuance of the easement, an entry permit must be obtained. There will also be a charge for the entry permit.

5. Landscaping

Metropolitan's landscape guidelines for its fee properties and/or easements are as follows:

a. A green belt may be allowed within Metropolitan's fee property or easement.

b. All landscape plans shall show the location and size of Metropolitan's fee property and/or easement and the location and size of Metropolitan's pipeline or other facilities therein.

c. Absolutely no trees will be allowed within 15 feet of the centerline of Metropolitan's existing or future pipelines and facilities.

d. Deep-rooted trees are prohibited within Metropolitan's fee properties and/or easements. Shallow-rooted trees are the only trees allowed. The shallow-rooted trees will not be permitted any closer than 15 feet from the centerline of the pipeline, and such trees shall not be taller than 25 feet with a root spread no greater than 20 feet in diameter at maturity. Shrubs, bushes, vines, and ground cover are permitted, but larger shrubs and bushes should not be planted directly over our pipeline. Turf is acceptable. We require submittal of landscape plans for Metropolitan's prior review and written approval. (See Figure 3).

e. The landscape plans must contain provisions for Metropolitan's vehicular access at all times along its rights-of-way to its pipelines or facilities therein. Gates capable of accepting Metropolitan's locks are required in any fences across its rights-of-way. Also, any walks or drainage facilities across its access route must be constructed to AASHTO H-20 loading standards.

f. Rights to landscape any of Metropolitan's fee properties must be acquired from its Right of Way and Land Division. Appropriate entry permits must be obtained prior to any entry on its property. There will be a charge for any entry permit or easements required.

6. Fencing

Metropolitan requires that perimeter fencing of its fee properties and facilities be constructed of universal chain link, 6 feet in height and topped with 3 strands of barbed wire angled upward and outward at a 45 degree angle or an approved equal for a total fence height of 7 feet. Suitable substitute fencing may be considered by Metropolitan. (Please see Figure 5 for details).

7. Utilities in Metropolitan's Fee Properties and/or Easements or Adjacent to Its Pipeline in Public Streets

Metropolitan's policy for the alinement of utilities permitted within its fee properties and/or easements and street rights-of-way is as follows:

a. Permanent structures, including catch basins, manholes, power poles, telephone riser boxes, etc., shall not be located within its fee properties and/or easements.

b. We request that permanent utility structures within public streets, in which Metropolitan's facilities are constructed under the Metropolitan Water District Act, be placed as far from our pipeline as possible, but not closer than 5 feet from the outside of our pipeline.

c. The installation of utilities over or under Metropolitan's pipeline(s) must be in accordance with the requirements shown on the enclosed prints of Drawings Nos. C-11632 and C-9547. Whenever possible we request a minimum of one foot clearance between Metropolitan's pipe and your facility. Temporary support of Metropolitan's pipe may also be required at undercrossings of its pipe in an open trench. The temporary support plans must be reviewed and approved by Metropolitan.

d. Lateral utility crossings of Metropolitan's pipelines must be as perpendicular to its pipeline alinement as practical. Prior to any excavation our pipeline shall be located manually and any excavation within two feet of our pipeline must be done by hand. This shall be noted on the appropriate drawings.

e. Utilities constructed longitudinally within Metropolitan's rights-of-way must be located outside the theoretical trench prism for uncovering its pipeline and must be located parallel to and as close to its rights-of-way lines as practical.

f. When piping is jacked or installed in jacked casing or tunnel under Metropolitan's pipe, there must be at least two feet of vertical clearance between the bottom of Metropolitan's pipe and the top of the jacked pipe, jacked casing or tunnel. We also require that detail drawings of the shoring for the jacking or tunneling pits be submitted for our review and approval. Provisions must be made to grout any voids around the exterior of the jacked pipe, jacked casing or tunnel. If the piping is installed in a jacked casing or tunnel the annular space between the piping and the jacked casing or tunnel must be filled with grout.

g. Overhead electrical and telephone line requirements:

1) Conductor clearances are to conform to the California State Public Utilities Commission, General Order 95, for Overhead Electrical Line Construction or at a greater clearance if required by Metropolitan. Under no circumstances shall clearance be less than 35 feet.

2) A marker must be attached to the power pole showing the ground clearance and line voltage, to help prevent damage to your facilities during maintenance or other work being done in the area.

3) Line clearance over Metropolitan's fee properties and/or easements shall be shown on the drawing to indicate the lowest point of the line under the most adverse conditions including consideration of sag, wind load, temperature change, and support type. We require that overhead lines be located at least 30 feet laterally away from all above-ground structures on the pipelines.

4) When underground electrical conduits, 120 volts or greater, are installed within Metropolitan's fee property and/or easement, the conduits must be incased in a minimum of three inches of red concrete. Where possible, above ground warning signs must also be placed at the right-of-way lines where the conduits enter and exit the right-of-way.

h. The construction of sewerlines in Metropolitan's fee properties and/or easements must conform to the California Department of Health Services Criteria for the Separation of Water Mains and Sanitary Services and the local City or County Health Code Ordinance as it relates to installation of sewers in the vicinity of pressure waterlines. The construction of sewerlines should also conform to these standards in street rights-of- way.

i. Cross sections shall be provided for all pipeline crossings showing Metropolitan's fee property and/or easement limits and the location of our pipeline(s). The exact locations of the crossing pipelines and their elevations shall be marked on as-built drawings for our information.

j. Potholing of Metropolitan's pipeline is required if the vertical clearance between a utility and Metropolitan's pipeline is indicated on the plan to be one foot or less. If the indicated clearance is between one and two feet, potholing is suggested. Metropolitan will provide a representative to assists others in locating and identifying its pipeline. Two-working days notice is requested.

k. Adequate shoring and bracing is required for the full depth of the trench when the excavation encroaches within the zone shown on Figure 4.

l. The location of utilities within Metropolitan's fee property and/or easement shall be plainly marked to help prevent damage during maintenance or other work done in the area. Detectable tape over buried utilities should be placed a minimum of 12 inches above the utility and shall conform to the following requirements:

1) Water pipeline: A two-inch blue warning tape shall be imprinted with:

"CAUTION BURIED WATER PIPELINE"

2) Gas, oil, or chemical pipeline: A two-inch yellow warning tape shall be imprinted with:

"CAUTION BURIED _____ PIPELINE"

3) Sewer or storm drain pipeline: A two-inch green warning tape shall be imprinted with:

"CAUTION BURIED _____ PIPELINE"

4) Electric, street lighting, or traffic signals conduit: A two-inch red warning tape shall be imprinted with:

"CAUTION BURIED _____ CONDUIT"

5) Telephone, or television conduit: A two-inch orange warning tape shall be imprinted with:

"CAUTION BURIED _____ CONDUIT"

m. Cathodic Protection requirements:

1) If there is a cathodic protection station for Metropolitan's pipeline in the area of the proposed work, it shall be located prior to any grading or excavation. The exact location, description and manner of protection shall be shown on all applicable plans. Please contact Metropolitan's Corrosion Engineering Section, located at Metropolitan's F. E. Weymouth Softening and Filtration Plant, 700 North Moreno Avenue, La Verne, California 91750, telephone (714) 593-7474, for the locations of Metropolitan's cathodic protection stations.

2) If an induced-current cathodic protection system is to be installed on any pipeline crossing Metropolitan's pipeline, please contact Mr. Wayne E. Risner at (714) 593-7474 or (213) 250-5085. He will review the proposed system and determine if any conflicts will arise with the existing cathodic protection systems installed by Metropolitan.

3) Within Metropolitan's rights-of-way, pipelines and carrier pipes (casings) shall be coated with an approved protective coating to conform to Metropolitan's requirements, and shall be maintained in a neat and orderly condition as directed by Metropolitan. The application and monitoring of cathodic protection on the pipeline and casing shall conform to Title 49 of the Code of Federal Regulations, Part 195.

4) If a steel carrier pipe (casing) is used:

(a) Cathodic protection shall be provided by use of a sacrificial magnesium anode (a sketch showing the cathodic protection details can be provided for the designers information).

(b) The steel carrier pipe shall be protected with a coal tar enamel coating inside and out in accordance with AWWA C203 specification.

n. All trenches shall be excavated to comply with the CAL/OSHA Construction Safety Orders, Article 6, beginning with Sections 1539 through 1547. Trench backfill shall be placed in 8-inch lifts and shall be compacted to 95 percent relative compaction (ASTM D698) across roadways and through protective dikes. Trench backfill elsewhere will be compacted to 90 percent relative compaction (ASTM D698).

o. Control cables connected with the operation of Metropolitan's system are buried within streets, its fee properties and/or easements. The locations and elevations of these cables shall be shown on the drawings. The drawings shall note that prior to any excavation in the area, the control cables shall be located and measures shall be taken by the contractor to protect the cables in place.

p. Metropolitan is a member of Underground Service Alert (USA). The contractor (excavator) shall contact USA at 1-800-422-4133 (Southern California) at least 48 hours prior to starting any excavation work. The contractor will be liable for any damage to Metropolitan's facilities as a result of the construction.

8. Paramount Right

Facilities constructed within Metropolitan's fee properties and/or easements shall be subject to the paramount right of Metropolitan to use its fee properties and/or easements for the purpose for which they were acquired. If at any time Metropolitan or its assigns should, in the exercise of their rights, find it necessary to remove any of the facilities from the fee properties and/or easements, such removal and replacement shall be at the expense of the owner of the facility.

9. Modification of Metropolitan's Facilities

When a manhole or other of Metropolitan's facilities must be modified to accommodate your construction or reconstruction, Metropolitan will modify the facilities with its forces. This should be noted on the construction plans. The estimated cost to perform this modification will be given to you and we will require a deposit for this amount before the work is performed. Once the deposit is received, we will schedule the work. Our forces will coordinate the work with your contractor. Our final billing will be based on actual cost incurred, and will include materials, construction, engineering plan review, inspection, and administrative overhead charges calculated in accordance with Metropolitan's standard accounting practices. If the cost is less than the deposit, a refund will be made; however, if the cost exceeds the deposit, an invoice will be forwarded for payment of the additional amount.

10. Drainage

a. Residential or commercial development typically increases and concentrates the peak storm water runoff as well as the total yearly storm runoff from an area, thereby increasing the requirements for storm drain facilities downstream of the development. Also, throughout the year water from landscape irrigation, car washing, and other outdoor domestic water uses flows into the storm drainage system resulting in weed abatement, insect infestation, obstructed access and other problems. Therefore, it is Metropolitan's usual practice not to approve plans that show discharge of drainage from developments onto its fee properties and/or easements.

b. If water must be carried across or discharged onto Metropolitan's fee properties and/or easements, Metropolitan will insist that plans for development provide that it be carried by closed conduit or lined open channel approved in writing by Metropolitan. Also the drainage facilities must be maintained by others, e.g., city, county, homeowners association, etc. If the development proposes changes to existing drainage features, then the developer shall make provisions to provide for replacement and these changes must be approved by Metropolitan in writing.

11. Construction Coordination

During construction, Metropolitan's field representative will make periodic inspections. We request that a stipulation be added to the plans or specifications for notification of Mr. _____ of Metropolitan's Operations Services Branch, telephone (213) 250-____, at least two working days prior to any work in the vicinity of our facilities.

12. Pipeline Loading Restrictions

a. Metropolitan's pipelines and conduits vary in structural strength, and some are not adequate for AASHTO H-20 loading. Therefore, specific loads over the specific sections of pipe or conduit must be reviewed and approved by Metropolitan. However, Metropolitan's pipelines are typically adequate for AASHTO H-20 loading provided that the cover over the pipeline is not less than four feet or the cover is not substantially increased. If the temporary cover over the pipeline during construction is between three and four feet, equipment must restricted to that which

imposes loads no greater than AASHTO H-10. If the cover is between two and three feet, equipment must be restricted to that of a Caterpillar D-4 tract-type tractor. If the cover is less than two feet, only hand equipment may be used. Also, if the contractor plans to use any equipment over Metropolitan's pipeline which will impose loads greater than AASHTO H-20, it will be necessary to submit the specifications of such equipment for our review and approval at least one week prior to its use. More restrictive requirements may apply to the loading guideline over the San Diego Pipelines 1 and 2, portions of the Orange County Feeder, and the Colorado River Aqueduct. Please contact us for loading restrictions on all of Metropolitan's pipelines and conduits.

b. The existing cover over the pipeline shall be maintained unless Metropolitan determines that proposed changes do not pose a hazard to the integrity of the pipeline or an impediment to its maintenance.

13. Blasting

a. At least 20 days prior to the start of any drilling for rock excavation blasting, or any blasting, in the vicinity of Metropolitan's facilities, a two-part preliminary conceptual plan shall be submitted to Metropolitan as follows:

b. Part 1 of the conceptual plan shall include a complete summary of proposed transportation, handling, storage, and use of explosions.

c. Part 2 shall include the proposed general concept for blasting, including controlled blasting techniques and controls of noise, fly rock, airblast, and ground vibration.

14. CEQA Requirements

a. When Environmental Documents Have Not Been Prepared

1) Regulations implementing the California Environmental Quality Act (CEQA) require that Metropolitan have an opportunity to consult with the agency or consultants preparing any environmental documentation. We are required to review and consider the environmental effects of the project as shown in the Negative Declaration or Environmental Impact Report (EIR) prepared for your project before committing Metropolitan to approve your request.

2) In order to ensure compliance with the regulations implementing CEQA where Metropolitan is not the Lead Agency, the following minimum procedures to ensure compliance with the Act have been established:

a) Metropolitan shall be timely advised of any determination that a Categorical Exemption applies to the project. The Lead Agency is to advise Metropolitan that it and other agencies participating in the project have complied with the requirements of CEQA prior to Metropolitan's participation.

b) Metropolitan is to be consulted during the preparation of the Negative Declaration or EIR.

c) Metropolitan is to review and submit any necessary comments on the Negative Declaration or draft EIR.

d) Metropolitan is to be indemnified for any costs or liability arising out of any violation of any laws or regulations including but not limited to the California Environmental Quality Act and its implementing regulations.

b. <u>When Environmental Documents Have Been Prepared</u>

If environmental documents have been prepared for your project, please furnish us a copy for our review and files in a timely manner so that we may have sufficient time to review and comment. The following steps must also be accomplished:

1) The Lead Agency is to advise Metropolitan that it and other agencies participating in the project have complied with the requirements of CEQA prior to Metropolitan's participation.

2) You must agree to indemnify Metropolitan, its officers, engineers, and agents for any costs or liability arising out of any violation of any laws or regulations including but not limited to the California Environmental Quality Act and its implementing regulations.

15. <u>Metropolitan's Plan-Review Cost</u>

a. An engineering review of your proposed facilities and developments and the preparation of a letter response

giving Metropolitan's comments, requirements and/or approval that will require 8 man-hours or less of effort is typically performed at no cost to the developer, unless a facility must be modified where Metropolitan has superior rights. If an engineering review and letter response requires more than 8 man-hours of effort by Metropolitan to determine if the proposed facility or development is compatible with its facilities, or if modifications to Metropolitan's manhole(s) or other facilities will be required, then all of Metropolitan's costs associated with the project must be paid by the developer, unless the developer has superior rights.

b. A deposit of funds will be required from the developer before Metropolitan can begin its detailed engineering plan review that will exceed 8 hours. The amount of the required deposit will be determined after a cursory review of the plans for the proposed development.

c. Metropolitan's final billing will be based on actual cost incurred, and will include engineering plan review, inspection, materials, construction, and administrative overhead charges calculated in accordance with Metropolitan's standard accounting practices. If the cost is less than the deposit, a refund will be made; however, if the cost exceeds the deposit, an invoice will be forwarded for payment of the additional amount. Additional deposits may be required if the cost of Metropolitan's review exceeds the amount of the initial deposit.

16. Caution

We advise you that Metropolitan's plan reviews and responses are based upon information available to Metropolitan which was prepared by or on behalf of Metropolitan for general record purposes only. Such information may not be sufficiently detailed or accurate for your purposes. No warranty of any kind, either express or implied, is attached to the information therein conveyed as to its accuracy, and no inference should be drawn from Metropolitan's failure to comment on any aspect of your project. You are therefore cautioned to make such surveys and other field investigations as you may deem prudent to assure yourself that any plans for your project are correct.

17. Additional Information

Should you require additional information, please contact:

Civil Engineering Substructures Section
Metropolitan Water District
of Southern California
P.O. Box 54153
Los Angeles, California 90054-0153
(213) 217-6000

JEH/MRW/lk

Rev. January 22, 1989

Encl.

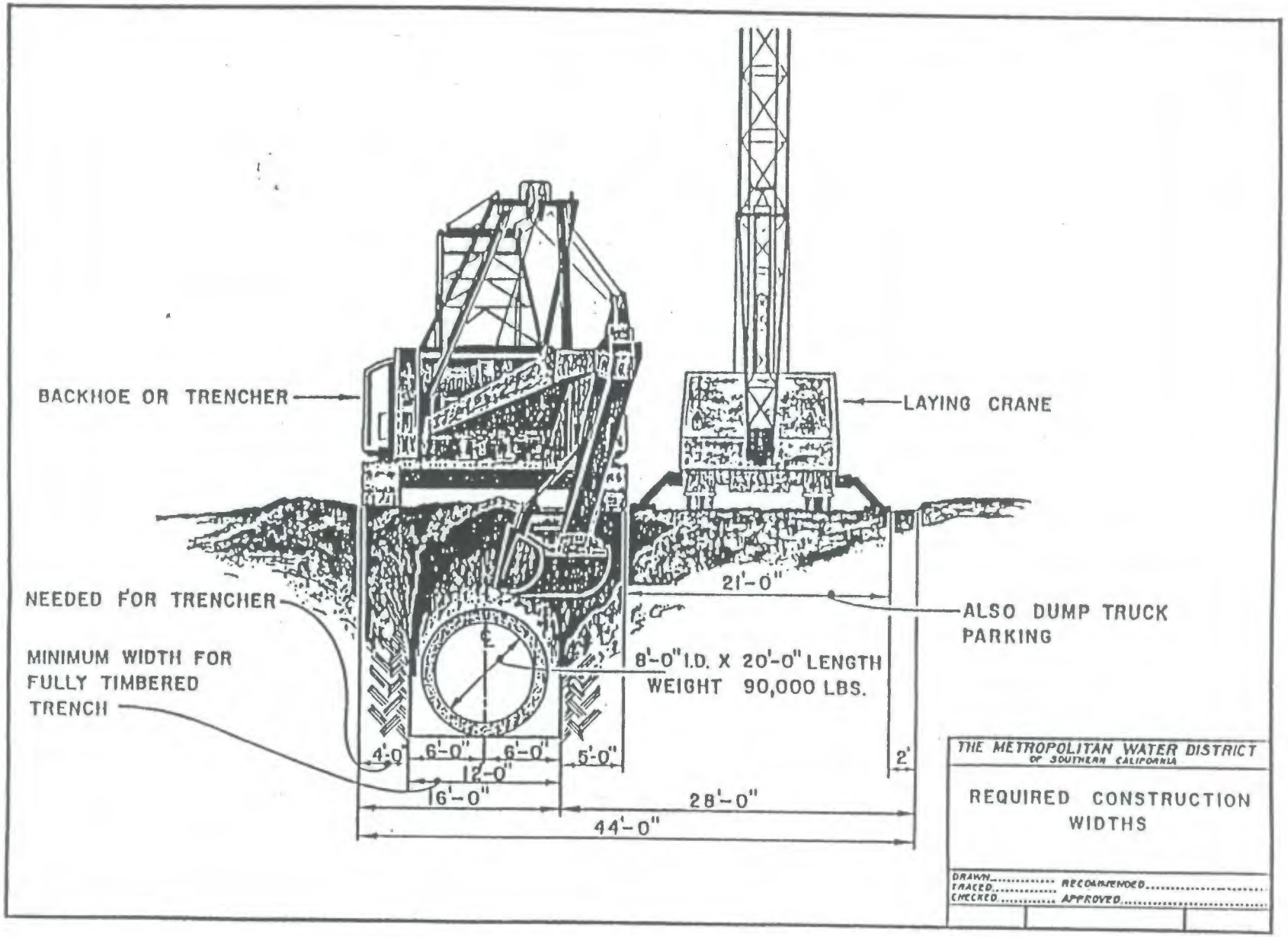
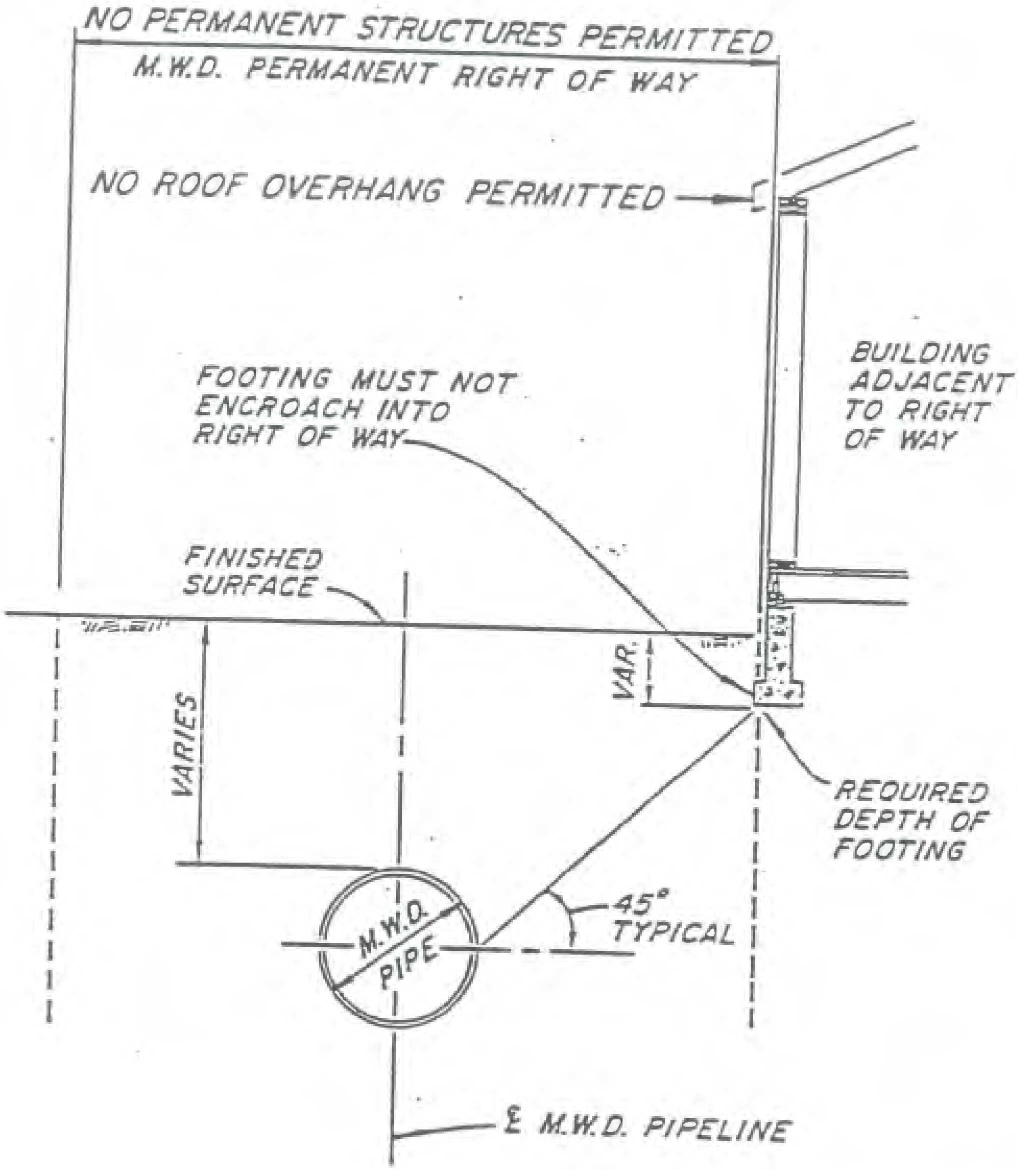


FIGURE 1



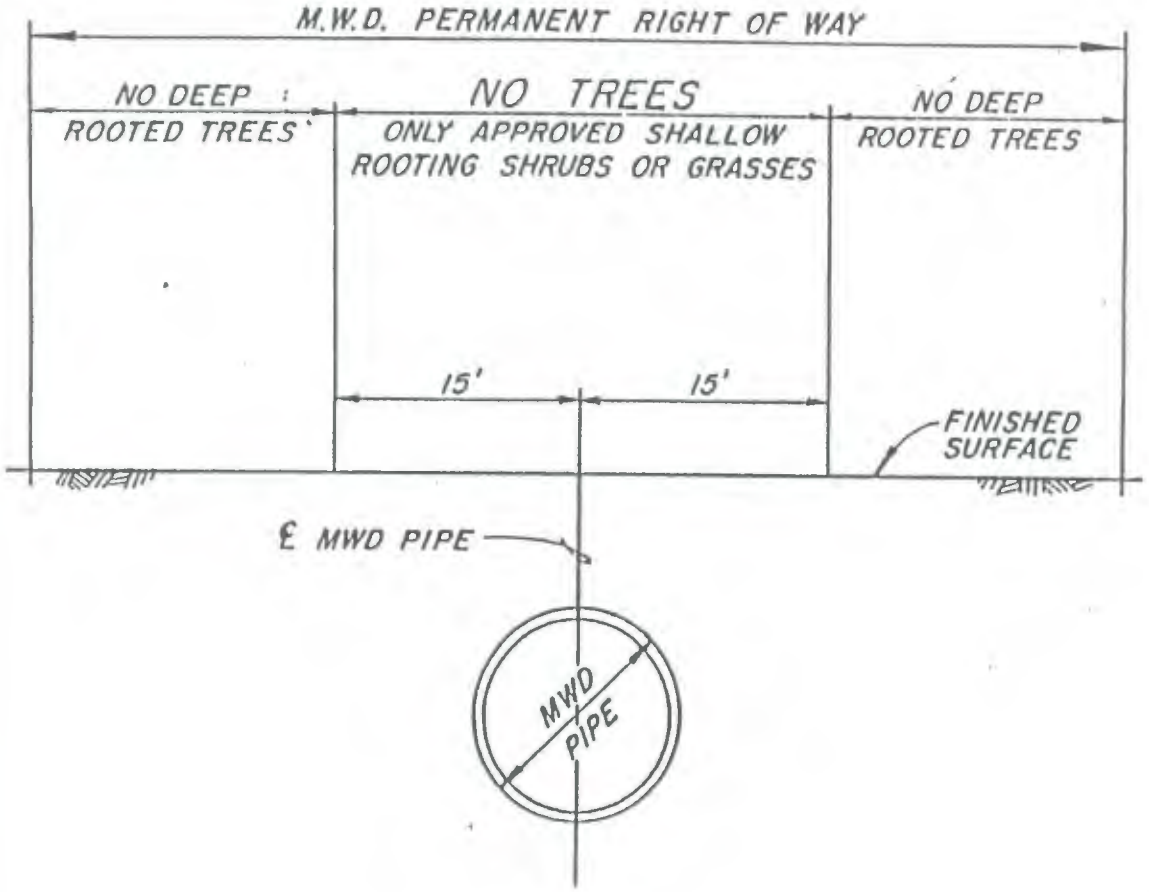
NOTE: M.W.D. PIPELINE SIZE, DEPTH, LOCATION AND WIDTH OF PERMANENT RIGHT OF WAY VARIES.

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

REQUIREMENTS FOR BUILDINGS AND FOOTINGS ADJACENT TO M.W.D. RIGHT OF WAY

DRAWN ______ RECOMMENDED ______
TRACED ______
CHECKED ______ APPROVED ______

FIGURE 2



THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

LANDSCAPE GUIDELINES FOR M.W.D. RIGHT OF WAY

DRAWN ..... RECOMMENDED .....
TRACED ..... APPROVED .....
CHECKED .....

FIGURE 3

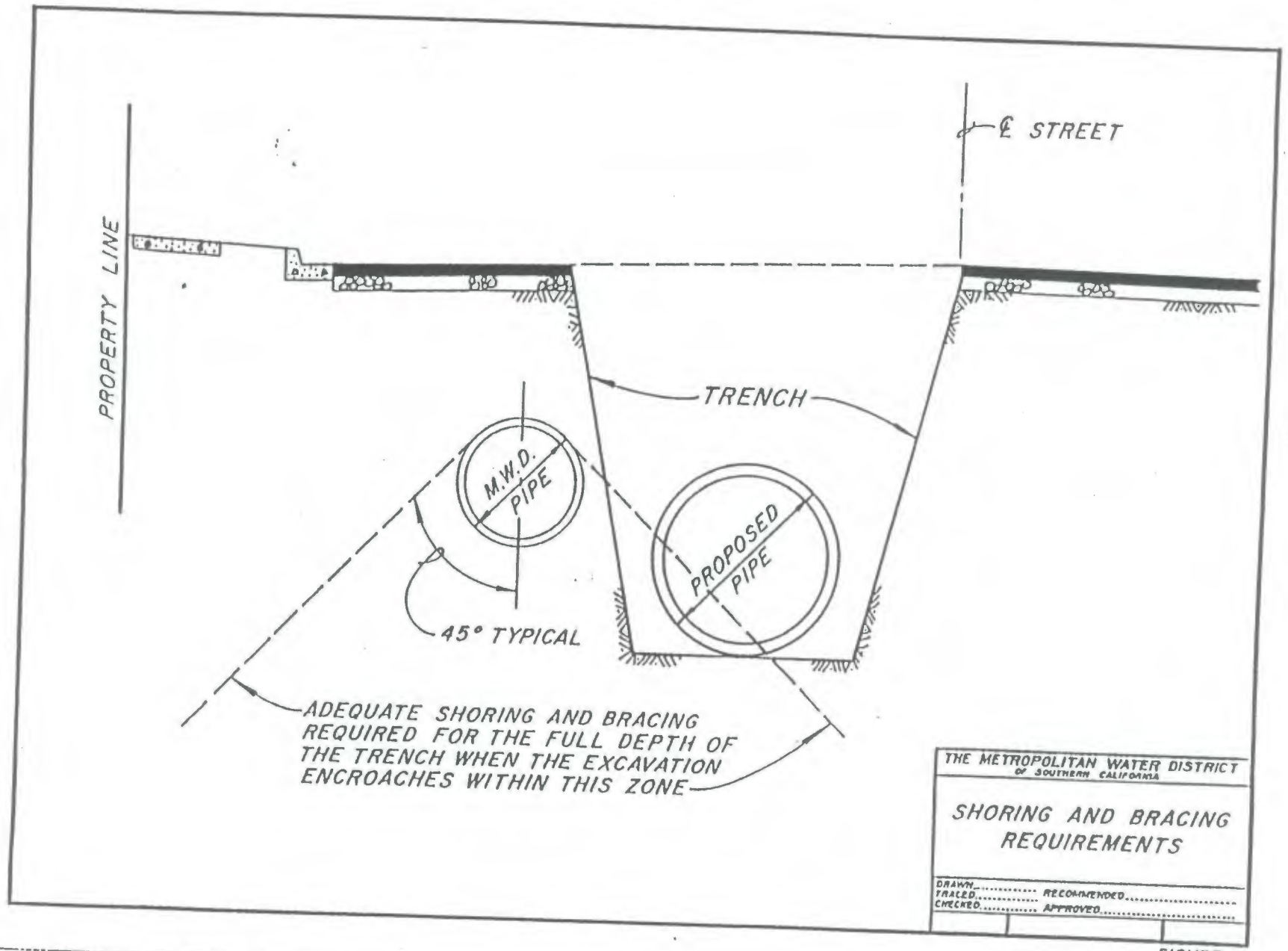
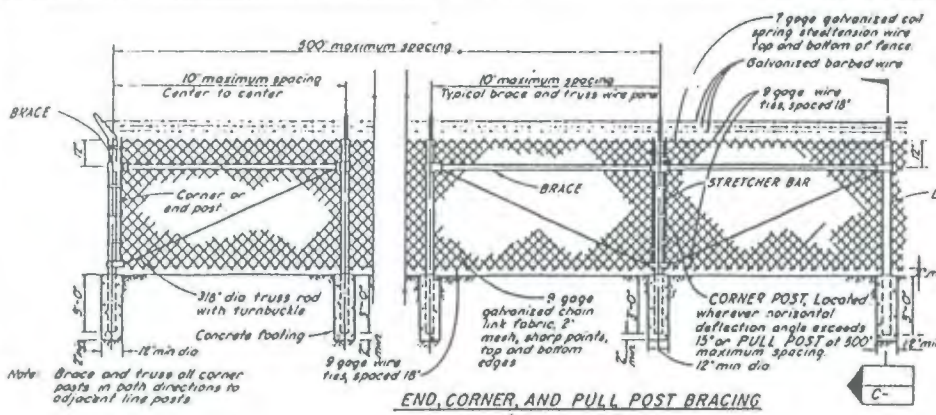
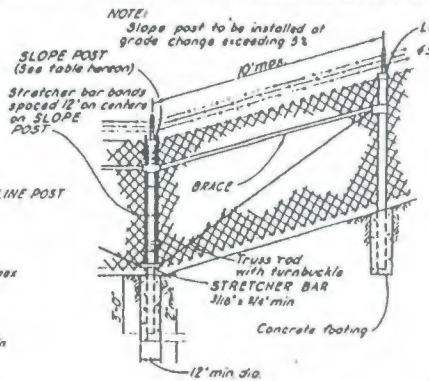


FIGURE 4

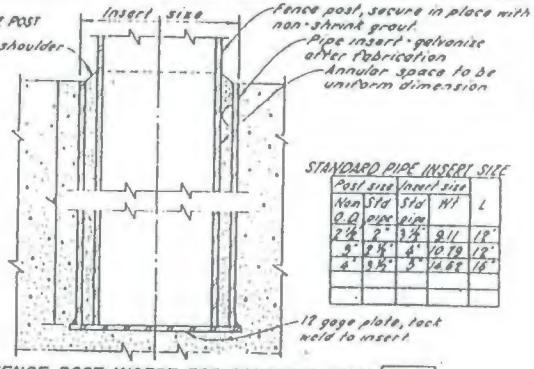
SPECIFICATIONS NO. SHEET NO.



END, CORNER, AND PULL POST BRACING
(Not to scale)



TYPICAL FENCE ON SLOPE
(Not to scale)

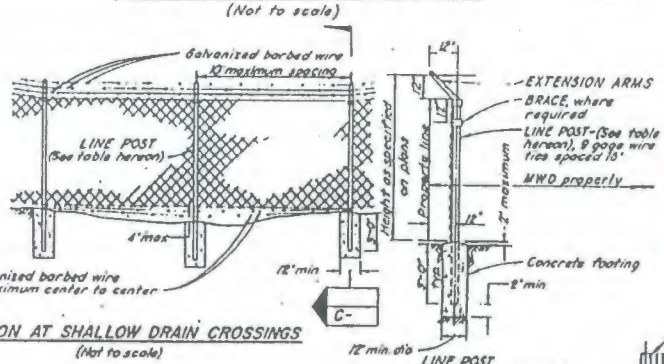


STANDARD PIPE INSERT SIZE

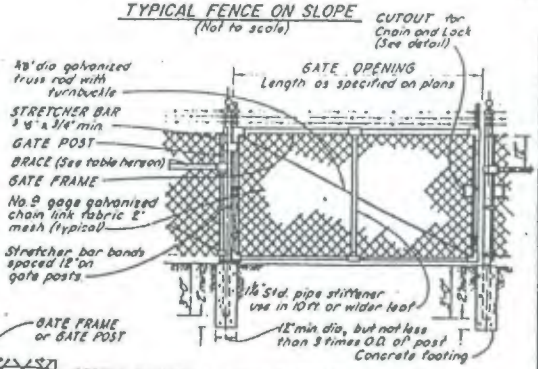
Post size	Insert size			
Nom O.D.	Std pipe	Std pipe	W.T.	L
2½"	2"	3½"	9.11	12"
3"	2½"	4"	10.79	12"
4"	3½"	5"	14.62	16"

FENCE POST INSERT FOR CONCRETE WALL AND CONCRETE CURB
(Not to scale)

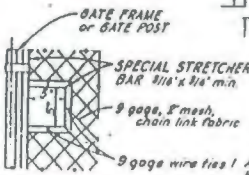
1



ELEVATION AT SHALLOW DRAIN CROSSINGS
(Not to scale)

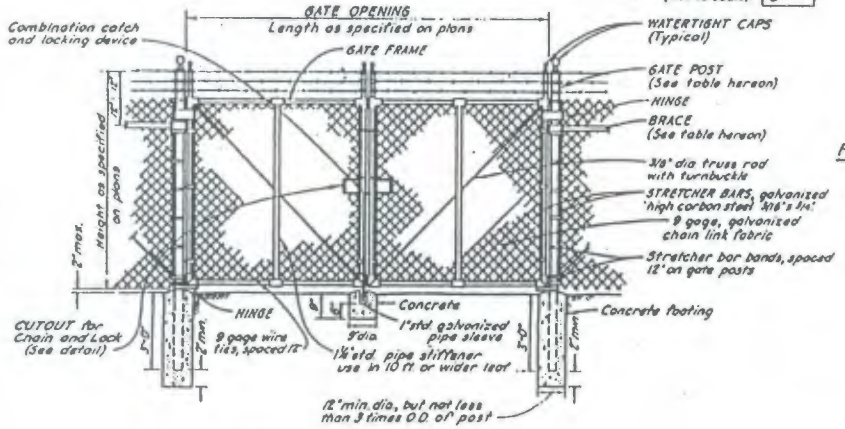


SINGLE SWING GATE DETAIL
(Not to scale)



DETAIL OF CUTOUT FOR CHAIN AND LOCK
(Not to scale)

Use	Type	Nominal Size (inches)	Actual O.D. (inches)	Weight per foot Pounds
End, corner, slope, pull and gate posts (for single gates 6 feet or less in width and double gates 12 feet or less in width) for chain link fabric 72 inches or higher	Pipe	2½	2.875	3.79
End, corner, slope, pull and gate posts (for single gates 6 feet or less in width and double gates 12 feet or less in width) for chain link fabric less than 72 inches height	Pipe	2	2.375	3.63
Gate posts for single swing gates over 6 feet but not over 13 feet in width and double swing gates over 12 feet but not over 26 feet in width.	Pipe	3½	4.000	9.11
Gate posts for single swing gates over 13 feet but not over 18 feet in width and double swing gates over 26 feet but not over 36 feet in width.	Pipe	6	6.625	18.97
Gate posts for single swing gates over 18 feet in width and double swing gates over 36 feet in width	Pipe	8	8.625	24.70
Line posts for chain link fabric 72 inches or higher	Pipe H-Section	2 2"x6" 17#	2.375	3.65 4.10
Line posts for chain link fabric less than 72 inches in height	Pipe H-Section	1¼ 1¼x1¼ 14#	1.900	2.72 2.80
Braces	Pipe H-Section	1¼ 1¼x1¼ 11#	1.660	2.27 2.89
Frame for gates	Pipe	1¼	1.900	2.72
Stiffeners for gates	Pipe	1¼	1.660	2.27



DOUBLE SWING GATE DETAIL
(Not to scale)

GENERAL NOTES

1. All ferrous parts and materials shall be galvanized after fabrication
2. Adjustable tighteners shall be turnbuckle or equivalent, having minimum 6" take-up
3. Extension arms for barbed wire shall be steel, malleable iron or wrought iron and shall be attached to the top of the post with a ⅜ inch round head rivet. The extension arms shall carry three wires each at approximately 5 inch centers in a plane approximately 45° from the vertical.
4. All gate hinges shall be heavy duty malleable iron or steel, industrial service type, 270 degree swing, of approved quality and design.
5. Secure cap to post with ⅜ inch round head rivet

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA
DISTRIBUTION SYSTEM

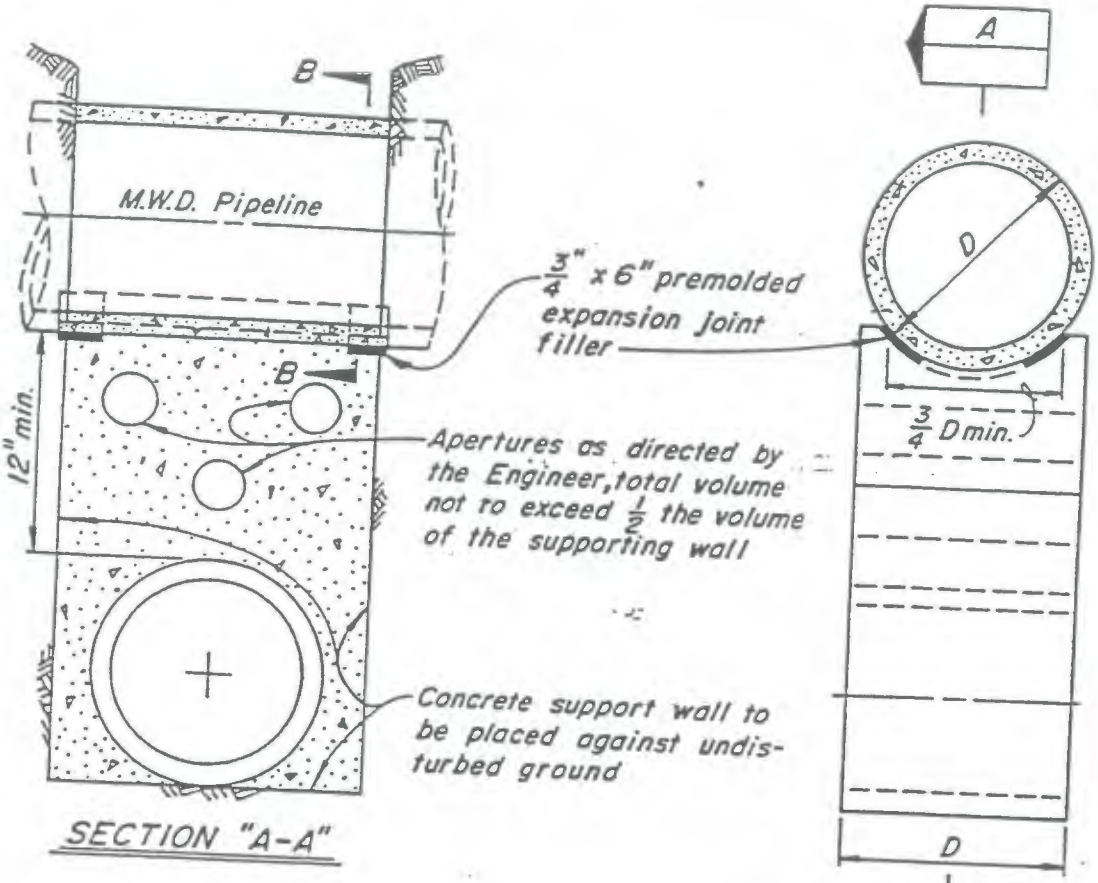
CHAIN LINK FENCE DETAILS

DESIGNED
DRAWN
CHECKED
RECOMMENDED
APPROVED
WORK ORDER NO.
LOS ANGELES

NO.	DATE	BY	CK'D.	REVISION	ENG.	APP.

ORIGINAL RELEASE | MECH. | STRUCT. | ELEC. | CIVIL | SPECS | DATE
REVISION COORDINATION CHECK
INTERSECTIONAL COORDINATION CHECK

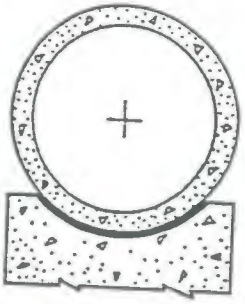
FIGURE 5



SECTION "A-A"

CROSS SECTION

1. Supporting wall shall have a firm bearing on the subgrade and against the side of the excavation.
2. Premolded expansion joint filler per ASTM D-1751-73 to be used in support for steel pipe only.
3. If trench width is 4 feet or greater, measured along centerline of M.W.D. pipe, concrete support must be constructed.
4. If trench width is less than 4 feet, clean sand backfill, compacted to 90% density in accordance with the provisions of ASTM Standard D-1557-70 may be used in lieu of the concrete support wall.



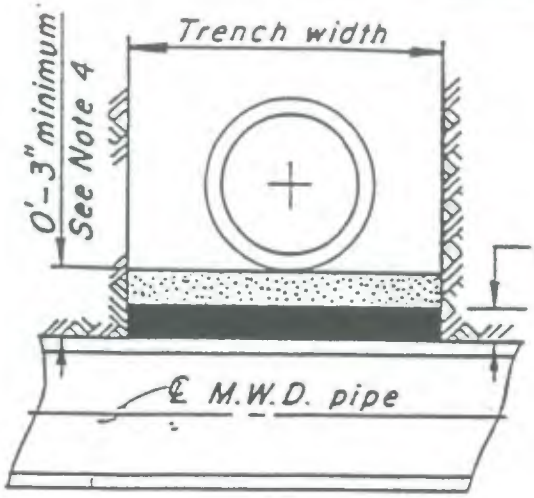
SECTION "B-B"

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

TYPICAL SUPPORT FOR M.W.D. PIPELINE

DRAWN
TRACED
CHECKED
RECOMMENDED
APPROVED

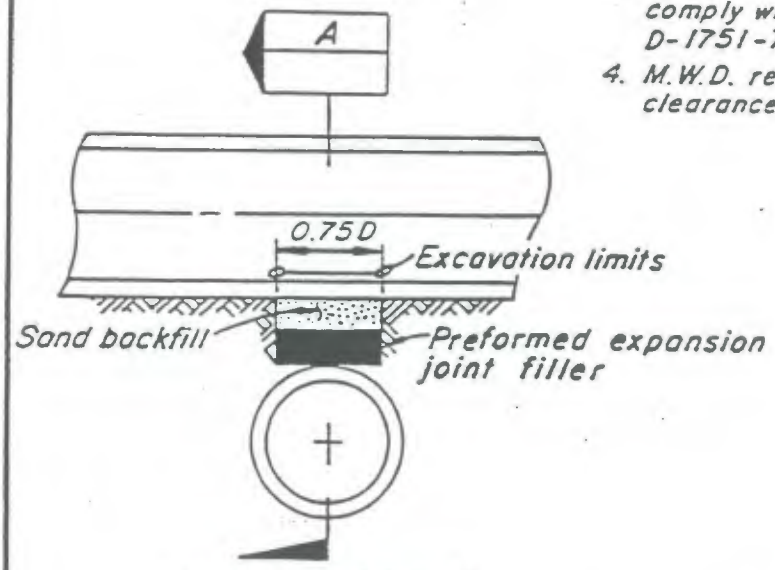
C-9547



SECTION A

NOTES

1. This method to be used where the utility line is 24" or greater in diameter and the clearance between the utility line and M.W.D. pipe is 12" or less.
2. Special protection may be required if the utility line diameter is greater than M.W.D. pipe or if the cover over the utility line to the street surface is minimal and there is 12" or less clearance between M.W.D. pipe and the utility line.
3. Preformed expansion joint filler to comply with ASTM designation D-1751-73.
4. M.W.D. requests 12" minimum clearance whenever possible.



CROSS SECTION

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

TYPICAL EXPANSION JOINT FILLER PROTECTION FOR OVERCROSSING OF M.W.D. PIPELINE

DRAWN _____ RECOMMENDED _____
TRACED _____
CHECKED _____ APPROVED _____

C-11632

Gregg

Edmond G. Brown, Jr., *Governor*

STATE OF CALIFORNIA
NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., ROOM 100
West SACRAMENTO, CA 95691
(916) 373-3710
Fax (916) 373-5471

September 25, 2014

Gregg BeGell
Los Angeles County Flood Control District
900 South Fremont Avenue, 11th Floor
Alhambra, CA 91803

RE: SCH# 2014081106 Enhanced Watershed Management Programs (EWMP) Program EIR, Los Angeles County.

Dear Mr. BeGell,

The Native American Heritage Commission (NAHC) has reviewed the Notice of Preparation (NOP) referenced above. The California Environmental Quality Act (CEQA) states that any project that causes a substantial adverse change in the significance of an historical resource, which includes archeological resources, is a significant effect requiring the preparation of an EIR (CEQA Guidelines 15064(b)). To comply with this provision the lead agency is required to assess whether the project will have an adverse impact on historical resources within the area of project effect (APE), and if so to mitigate that effect. To adequately assess and mitigate project-related impacts to archaeological resources, the NAHC recommends the following actions:

- ✓ Contact the appropriate regional archaeological Information Center for a record search. The record search will determine:
  - If a part or all of the area of project effect (APE) has been previously surveyed for cultural resources.
  - If any known cultural resources have already been recorded on or adjacent to the APE.
  - If the probability is low, moderate, or high that cultural resources are located in the APE.
  - If a survey is required to determine whether previously unrecorded cultural resources are present.
- ✓ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure.
  - The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.
- ✓ Contact the Native American Heritage Commission for:
  - A Sacred Lands File Check. **USGS 7.5-minute quadrangle name, township, range, and section required**
  - A list of appropriate Native American contacts for consultation concerning the project site and to assist in the mitigation measures. **Native American Contacts List attached**
- ✓ Lack of surface evidence of archeological resources does not preclude their subsurface existence.
  - Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) Guidelines §15064.5(f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
  - Lead agencies should include in their mitigation plan provisions for the disposition of recovered cultural items that are not burial associated, which are addressed in Public Resources Code (PRC) §5097.98, in consultation with culturally affiliated Native Americans.
  - Lead agencies should include provisions for discovery of Native American human remains in their mitigation plan. Health and Safety Code §7050.5, PRC §5097.98, and CEQA Guidelines §15064.5(e), address the process to be followed in the event of an accidental discovery of any human remains and associated grave goods in a location other than a dedicated cemetery.

Sincerely,

Katy Sanchez

Katy Sanchez
Associate Government Program Analyst

CC: State Clearinghouse

Native American Contacts
Los Angeles County
September 25, 2014

Tongva Ancestral Territorial Tribal Nation
John Tommy Rosas, Tribal Admin.
, Gabrielino Tongva
tattnlaw@gmail.com
(310) 570-6567

Gabrielino-Tongva Tribe
Bernie Acuna, Co-Chairperson
Contact information unavailable Gabrielino
,
Last attempted verification 9/5/14
(310) 428-5690 Cell

Gabrieleno/Tongva San Gabriel Band of Mission Indian
Anthony Morales, Chairperson
P.O. Box 693 Gabrielino Tongva
San Gabriel , CA 91778
GTTribalcouncil@aol.com
(626) 483-3564 Cell
(626) 286-1262 Fax

Gabrielino-Tongva Tribe
Linda Candelaria, Co-Chairperson
Contact information unavailable Gabrielino
,
Last attempted verification 9/5/14
(626) 676-1184 Cell

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St. Gabrielino Tongva
Los Angeles , CA 90012
sgoad@gabrielino-tongva.com
(951) 807-0479

Gabrieleno Band of Mission Indians
Andrew Salas, Chairperson
P.O. Box 393 Gabrielino
Covina , CA 91723
gabrielenoindians@yahoo.
(626) 926-4131

Gabrielino Tongva Indians of California Tribal Council
Robert F. Dorame, Tribal Chair/Cultural Resources
P.O. Box 490 Gabrielino Tongva
Bellflower , CA 90707
gtongva@verizon.net
(562) 761-6417 Voice/Fax

Gabrielino-Tongva Tribe
Conrad Acuna
Contact information unavailable Gabrielino
,
Last attempted verification 9/5/14

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH # 2014081106, Enhanced Watershed Management Programs (EWMP) Program EIR, Los Angeles County.

Native American Contacts
Los Angeles County
September 25, 2014

Gabrielino /Tongva Nation
Sam Dunlap, Cultural Resources Director
P.O. Box 86908 Gabrielino Tongva
Los Angeles , CA 90086
samdunlap@earthlink.net
(909) 262-9351

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH # 2014081106, Enhanced Watershed Management Programs (EWMP) Program EIR, Los Angeles County.

Laura Rocha

From: Begell, Gregg - Consultant <gbegell@dpw.lacounty.gov>
Sent: Tuesday, September 30, 2014 7:08 AM
To: Crumpacker, Andrea; David Pohl; Bellizia, Thomas W.
Subject: FW: COMMENTS ON NOTICE OF PREPARATION FOR DRAFT PROGRAM EIR FOR EWMP'S FOR L.A. COUNTY

Another clone

Gregg BeGell P E
Project Manager
Project Management Division II

From: douglaspfay@aol.com [mailto:douglaspfay@aol.com]
Sent: Monday, September 29, 2014 9:19 PM
To: Begell, Gregg - Consultant
Cc: rexfrankel@yahoo.com
Subject: COMMENTS ON NOTICE OF PREPARATION FOR DRAFT PROGRAM EIR FOR EWMP'S FOR L.A. COUNTY

Dear DWP Representatives and Interested Parties,

I understand why no one but Rex Frankel attended the NOP hearing on September 9th in Marina Del Rey. You have no specific projects to analyze for environmental impacts. You are attempting to analyze the environmental impact of words, not specific actions. It is impossible to analyze the impacts of no stated physical projects, just as it is impossible to analyze those unstated projects' impacts on the environmental setting, ie., the proper baseline, because you have no specific locations for these unspecified projects. Thus all you can say is to analyze the entire county. The two most essential parts of an environmental analysis are missing here: specific projects and specific sites. You have the process all backwards here, and thus, commenting on this NOP in any specific manner is impossible.

Some background: In 2002, local governments settled lawsuits and agreed to consent decrees and promised to stop violations of bacterial health codes at our beaches by 2021. This agreement gave the public agencies an extension beyond the original deadline of 2013 but only if the projects created new parkland and river corridors that could catch and clean water before it fouled the beaches.

In 2006, L.A. City proposed its first big plan under this agreement, an Implementation Plan for the Santa Monica Bay Beaches watersheds. This plan was sent back for redrafting by the RWQCB as it only reached 2% of its target and thus, would not accomplish the goal in the consent decree.

Also in 2006, L.A. city proposed the Integrated Resource Plan which mainly focused on building 25 Hyperion-style urban runoff treatment plants which would have cost the average homeowner ratepayer $400 a month. This plan went nowhere.

You also were to include identifying a location(s) adjacent to the Oxford Lagoon Bird Conservation Area where a water treatment and recycling facility could be located. This was intended to be a mandatory component of the future, now current, Oxford Basin Multiuse Enhancement Project. The City of Los Angeles Thatcher Maintenance Yard is an ideal location for a facility that could serve Marina del Rey and the Oxford Triangle neighborhood. The Oxford Basin Project should not proceed, including Prop 84 funding, until a recycled water component is included as promised.

In 2012, the County Supervisors tried to quietly approve a $300 million per year property tax hike to build a non-existent list of runoff cleansing and capturing projects. Howls of opposition arose and that plan went nowhere. The public wanted to know what they were paying for.

Now, you are finally starting to design the cleanup plan. But how can you ask the public to weigh in on the scope of the environmental analysis of that plan, when your description of that plan contains no specifics? Your stated plan to defer the environmental analysis of specific project impacts to when each one is up for approval thus ignores the cumulative impacts and therefore is "piecemealing", by starting major momentum of a project that is composed of many necessary

parts, yet deferring analysis and the controversy to a multitude of separate EIRs and CEQA documents and public hearings, all the while public input is diffused. We never get to weigh in on whether we like the complete plan because the Program EIR has no specifics to arouse concern and the real project discussion is delayed until much later in a way that requires massive efforts by the public to keep track of the success of the big plan.

The people who will pay for this plan want to see the specifics before you raise our taxes to pay for it. We want expanded and unpaved river corridor parks. We do not want the plan to include converting existing wetlands and wildlife habitat into pollution dumps and sumps. We want what we were promised, not a lame compromise that puts the cleanup burden on existing public lands, parks and house front yards. We want a complete plan for us to judge whether it will accomplish its promises and goals before you produce an EIR, not the other way around.

Please put me on the notification list for all actions relating to this project.

Respectfully submitted,

Douglas Fay
644 Ashland Ave Apt A
Santa Monica, CA 90405
email: douglaspfay@aol.com

Laura Rocha

From: Begell, Gregg - Consultant <gbegell@dpw.lacounty.gov>
Sent: Monday, September 29, 2014 4:32 PM
To: Crumpacker, Andrea; David Pohl; Tom Barnes
Subject: FW: COMMENTS ON NOTICE OF PREPARATION FOR DRAFT PROGRAM EIR FOR ENHANCED WATERSHED MANAGEMENT PROGRAMS FOR L.A. COUNTY

A clone of Rex's comment.

Gregg BeGell P E
Project Manager
Project Management Division II

From: Donna Murray [mailto:dlmurray47@gmail.com]
Sent: Monday, September 29, 2014 4:28 PM
To: Begell, Gregg - Consultant
Subject: COMMENTS ON NOTICE OF PREPARATION FOR DRAFT PROGRAM EIR FOR ENHANCED WATERSHED MANAGEMENT PROGRAMS FOR L.A. COUNTY

You have no specific projects to analyze for environmental impacts. You are attempting to analyze the environmental impact of words, not specific actions. It is impossible to analyze the impacts of no stated physical projects, just as it is impossible to analyze those unstated projects' impacts on the environmental setting, ie., the proper baseline, because you have no specific locations for these unspecified projects. Thus all you can say is to analyze the entire county. The two most essential parts of an environmental analysis are missing here: specific projects and specific sites. You have the process all backwards here, and thus, commenting on this NOP in any specific manner is impossible.

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In 2006, L.A. City proposed its first big plan under this agreement, an Implementation Plan for the Santa Monica Bay Beaches watersheds. This plan was sent back for redrafting by the RWQCB as it only reached 2% of its target and thus, would not accomplish the goal in the consent decree.

Also in 2006, L.A. city proposed the Integrated Resource Plan which mainly focused on building 25 Hyperion-style urban runoff treatment plants which would have cost the average homeowner ratepayer $400 a month. This plan went nowhere.

In 2012, the County Supervisors tried to quietly approve a $300 million per year property tax hike to build a non-existent list of runoff cleansing and capturing projects. Howls of opposition arose and that plan went nowhere. The public wanted to know what they were paying for.

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Please put me on the notification list for all actions relating to this project. Thank you.

Donna Murray
8734 Wiley Post Av
Los Angeles, CA 90045

Laura Rocha

From: Begell, Gregg - Consultant <gbegell@dpw.lacounty.gov>
Sent: Monday, September 29, 2014 4:41 PM
To: Crumpacker, Andrea; Tom Barnes; David Pohl
Subject: FW: Comments LACFCD SCH 2014081106 NOP Enhanced Watershed Management Programs due 9.29.2014

Here are a few good comments.

Are you filing all the comments into a file or folder such that the County can view all the comments in one place?

Gregg BeGell P E
Project Manager
Project Management Division II

From: Joyce Dillard [mailto:dillardjoyce@yahoo.com]
Sent: Monday, September 29, 2014 4:30 PM
To: Begell, Gregg - Consultant
Subject: Comments LACFCD SCH 2014081106 NOP Enhanced Watershed Management Programs due 9.29.2014

The Project Description is listed on the State Clearinghouse site as:

The development of the EWMP will involve the evaluation and selection of multiple watershed control measures or best management practices (BMP) types including non-structural and distributed, centralized and regional structural BMPs. These BMPs will be implemented to meet compliance goals and strategies under the 2014 MS4 Permit. Structural BMPs involve the construction of a physical control measure to alter the hydrology and/or water quality of incoming stormwater or non-stormwater. The three major functions for structural BMPs are infiltration, water quality treatment, and storage. These are three categories of structural BMPs, defined by the runoff area treated by the BMP and the required retention volume in accordance with the Permit.

Comments:

Watershed control measures seems to be the emphasis, but that term is not defined. It seems to exclude Watershed Protection Management Measure in areas applicable to the Coastal Zone Act Reauthorization Amendments which recognizes the impact of land-use activities on estuaries, beaches, marine resources and the ocean. *Economically feasible measures* and *greatest degree of pollutant reduction achievable* are terms from that Act.

All receiving waters should be identified as to type and federal jurisdiction.

The project only allows a build environment in a watershed that should have natural lands, ecosystems and normal watershed characteristics including ambient water quality standards and the Southern California Bight.

Antidegradation procedures should be addressed.

Alternatives should be presented for non-structural or structural projects.

Surrounding land uses and settings should be addressed as should settings such as air space in relationship to bird migratory patterns. Ambient air quality should be included.

Other public agencies should be included. US Army Corps of Engineers plays a role in navigable waters as does Caltrans in its responsibility for NPDES compliance.

Private parties, such as Lauren Bon (Water Rights Draft Permit A032212) should be included.

Baselines should be presented.

There should be consistency including applications of the various General Plan and its Elements across jurisdictions. Infrastructure should be addressed including but not limited to age, condition and operations and maintenance.

Since federal regulations are enforced involving Clean Water Act Navigable Waters, we question why there is no NEPA document preparation.

Joyce Dillard
P.O. Box 31377
Los Angeles, CA 90031

Laura Rocha

From: Begell, Gregg - Consultant <gbegell@dpw.lacounty.gov>
Sent: Monday, October 06, 2014 6:59 AM
To: Crumpacker, Andrea; David Pohl
Subject: FW: COMMENTS ON NOTICE OF PREPARATION FOR DRAFT PROGRAM EIR FOR ENHANCED WATERSHED MANAGEMENT PROGRAMS FOR LA COUNTY

Comment Letter.

Gregg BeGell P E
Project Manager
Project Management Division II

From: patricia mc pherson [mailto:patriciamcpherson1@verizon.net]
Sent: Friday, October 03, 2014 1:27 PM
To: Begell, Gregg - Consultant
Subject: COMMENTS ON NOTICE OF PREPARATION FOR DRAFT PROGRAM EIR FOR ENHANCED WATERSHED MANAGEMENT PROGRAMS FOR LA COUNTY

Grassroots Coalition submits its support of the comments made below by Mr. Rex Frankel.
Due on the 29th, GC was in transit from out of state and belatedly requests that its support of the comments below be part of
the record.
Please also note attachment of imagery of California.
Currently, the State Coastal Conservancy and the Dept of Fish and Wildlife have created a preordained outcome for the Ballona Wetlands Restoration. This outcome that has been determined to destroy the freshwater aquifers of Ballona (classified as potential drinking water) without the legal requirements of public participation and transparency of process that the millions of dollars of public bond money set forth in 2004. Such destructive plans to the watershed of the Ballona Valley should not be allowed to proceed.
The failure of the state to fully engage the public and provide accountability and transparency of process has led to the
dire situation of groundwater removal that CAlifornia and Ballona Wetlands have.

http://www.latimes.com/science/sciencenow/la-sci-sn-california-drought-groundwater-satellite-20141002-story.html

Thank you,
Patricia McPherson, President -Grassroots Coalition

September 29, 2014, 1:30 pm

From Rex Frankel, director, Ballona Ecosystem Education Project,
6038 west 75th street, L.A. CA 90045
310-738-0861, email: rexfrankel@yahoo.com

I understand why no one but myself attended the NOP hearing on September 9th in Marina Del Rey. You have no specific projects to analyze for environmental impacts. You are attempting to analyze the environmental impact of words, not specific actions. It is impossible to analyze the impacts of no stated physical projects, just as it is impossible to analyze those unstated projects' impacts on the environmental setting, ie., the proper baseline, because you have no specific locations for these unspecified projects. Thus all you can say is to analyze the entire county. The two most essential parts of an environmental analysis are missing here: specific projects and specific sites. You have the process all backwards here, and thus, commenting on this NOP in any specific manner is impossible.

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Please put me on the notification list for all actions relating to this project. Thank you.

Laura Rocha

From: Begell, Gregg - Consultant <gbegell@dpw.lacounty.gov>
Sent: Tuesday, October 14, 2014 4:06 PM
To: Crumpacker, Andrea; David Pohl
Subject: FW: Restoration of Baldwin Lake

Comment for record

Gregg BeGell P E
Project Manager
Project Management Division II

From: Jane Florentinus [mailto:java5@att.net]
Sent: Tuesday, October 14, 2014 1:23 PM
To: Begell, Gregg - Consultant
Subject: Restoration of Baldwin Lake

Hello Mr. BeGell,

I am a volunteer and member of the Arboretum located in Arcadia and would like to express my concern for the poor condition of the lake. As a volunteer docent I provide guided walks through the gardens as well as the lake perimeter. Visitors are dismayed and saddened to see the decline of such a great and wonderful treasure in the midst of our urban lifestyle. To have open space in our crowded communities is truly a rarity and must be preserved for future generations to appreciate. Please take my request for restoring the lake to heart.

Thank you for reading my message.

Jane Florentinus
7140 Hidden Pine Drive
San Gabriel, CA 91775
Copy of email sent to G. Osmena

Laura Rocha

From: Osmena, Genevieve <gosmena@dpw.lacounty.gov>
Sent: Monday, November 10, 2014 10:03 AM
To: Dale or Miriam Carter
Subject: RE: Baldwin Lake/Enhanced Watershed Management Plan

Mr. Carter,

Thank you for your email regarding Baldwin Lake at the LA Arboretum. I have added your contact information to the stakeholder list for the Rio Hondo/San Gabriel River Water Quality Group to receive notifications of future stakeholder meetings regarding the group's Enhanced Watershed Management Program (EWMP). We anticipate the next stakeholder meeting to occur in early to mid-Spring of next year to discuss the progress of the EWMP process with interested stakeholders. I have also forwarded your email to the group members for their consideration as they continue to discuss and develop their EWMP plan.

Thanks again for your comments.

Genevieve Osmeña, P.E.
County of Los Angeles Department of Public Works
East Unincorporated County MS4 Permit Compliance
Watershed Management Division
(626) 458-3978
gosmena@dpw.lacounty.gov

From: Dale or Miriam Carter [mailto:dmcart@att.net]
Sent: Wednesday, October 29, 2014 5:01 PM
To: Begell, Gregg - Consultant; Osmena, Genevieve
Cc: Snider Sandy; Schulhof Richard
Subject: Baldwin Lake/Enhanced Watershed Management Plan

Dear Mr. Begell and Ms. Osmena

This message is to encourage you to include the restoration of the Los Angeles County Arboretum's Baldwin Lake as a part of the Enhanced Watershed Management Plan for the Rio Hondo Watershed. To me, the following points emphasize the importance of this lake:

- It is one of the very few lakes easily accessible to the public in the San Gabriel Valley area, or even the Los Angeles basin
- It is an important environmental asset to the wildlife that is in or passes through the San Gabriel Valley
- It has historical significance regarding E.J. Baldwin's life as the founder of the city of Arcadia
- It has historical significance pertaining to the entertainment industry as a movie and TV location, and consequently is a tourist attraction
- It is geologically important and interesting as the last (I think) remaining sag pond along the Raymond earthquake fault

I encourage you to support restoring and including the lake in whatever watershed management plans evolve.

Regards,

Dale Carter
Arboretum volunteer and docent

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Edmund G. Brown Jr.
Governor

Ken Alex
Director

Notice of Preparation

August 29, 2014

To: Reviewing Agencies

Re: Enhanced Watershed Management Programs (EWMP) Program EIR
SCH# 2014081106

Attached for your review and comment is the Notice of Preparation (NOP) for the Enhanced Watershed Management Programs (EWMP) Program EIR draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Gregg BeGell
Los Angeles County Flood Control District
900 South Fremont Avenue, 11th Floor
Alhambra, CA 91803

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2014081106
Project Title Enhanced Watershed Management Programs (EWMP) Program EIR
Lead Agency Los Angeles County Flood Control District

Type NOP Notice of Preparation

Description The development of the EWMP will involve the evaluation and selection of multiple watershed control measures or best management practices (BMP) types including non-structural and distributed, centralized and regional structural BMPs. These BMPs will be implemented to meet compliance goals and strategies under the 2014 MS4 Permit. Structural BMPs involve the construction of a physical control measure to alter the hydrology and/or water quality of incoming stormwater or non-stormwater. The three major functions for structural BMPs are infiltration, water quality treatment, and storage. These are three categories of structural BMPs, defined by the runoff area treated by the BMP and the required retention volume in accordance with the Permit.

Lead Agency Contact

Name Gregg BeGell
Agency Los Angeles County Flood Control District
Phone 626 300 3298 **Fax**
email
Address 900 South Fremont Avenue, 11th Floor
City Alhambra **State** CA **Zip** 91803

Project Location

County Los Angeles
City Los Angeles, City of
Region
Cross Streets Throughout Los Angeles County
Lat / Long
Parcel No. Various
Township **Range** **Section** **Base**

Proximity to:

Highways Various
Airports LAX, Burbank
Railways Various
Waterways Various
Schools Various
Land Use Various land uses throughout the County

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Flood Plain/Flooding; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Soil Erosion/Compaction/Grading; Toxic/Hazardous; Traffic/Circulation; Water Quality; Vegetation; Water Supply; Wetland/Riparian; Wildlife; Cumulative Effects; Other Issues

Reviewing Agencies Resources Agency; Coachella Valley Mountains Conservancy; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Wildlife, Headquarters; Department of Fish and Wildlife, Marine Region; Native American Heritage Commission; Santa Monica Bay Restoration; Caltrans, District 7; Air Resources Board; State Water Resources Control Board, Division of Water Quality; State Water Resources Control Board, Division of Water Rights; Regional Water Quality Control Board, Region 4; San Gabriel & Lower Los Angeles Rivers & Mountains Conservancy; Santa Monica Mountains Conservancy

Date Received 08/29/2014 **Start of Review** 08/29/2014 **End of Review** 09/29/2014

NOP Distribution List

County: LOS ANGELES

SCH# 2014081106

Resources Agency

- [■] **Resources Agency**
  Nadell Gayou
- [ ] **Dept. of Boating & Waterways**
  Nicole Wong
- [▨] **California Coastal Commission**
  Elizabeth A. Fuchs
- [ ] **Colorado River Board**
  Lisa Johansen
- [ ] **Dept. of Conservation**
  Elizabeth Carpenter
- [ ] **California Energy Commission**
  Eric Knight
- [ ] **Cal Fire**
  Dan Foster
- [ ] **Central Valley Flood Protection Board**
  James Herota
- [ ] **Office of Historic Preservation**
  Ron Parsons
- [■] **Dept of Parks & Recreation**
  Environmental Stewardship Section
- [ ] **California Department of Resources, Recycling & Recovery**
  Sue O'Leary
- [ ] **S.F. Bay Conservation & Dev't. Comm.**
  Steve McAdam
- [▨] **Dept. of Water Resources**
  Resources Agency
  Nadell Gayou

Fish and Game

- [▨] **Depart. of Fish & Wildlife**
  Scott Flint
  Environmental Services Division
- [ ] **Fish & Wildlife Region 1**
  Donald Koch
- [ ] **Fish & Wildlife Region 1E**
  Laurie Harnsberger
- [ ] **Fish & Wildlife Region 2**
  Jeff Drongesen
- [ ] **Fish & Wildlife Region 3**
  Charles Armor
- [ ] **Fish & Wildlife Region 4**
  Julie Vance
- [ ] **Fish & Wildlife Region 5**
  Leslie Newton-Reed
  Habitat Conservation Program
- [ ] **Fish & Wildlife Region 6**
  Tiffany Ellis
  Habitat Conservation Program
- [ ] **Fish & Wildlife Region 6 I/M**
  Heidi Sickler
  Inyo/Mono, Habitat Conservation Program
- [▨] **Dept. of Fish & Wildlife M**
  George Isaac
  Marine Region

Other Departments

- [ ] **Food & Agriculture**
  Sandra Schubert
  Dept. of Food and Agriculture
- [ ] **Depart. of General Services**
  Public School Construction
- [ ] **Dept. of General Services**
  Anna Garbeff
  Environmental Services Section
- [ ] **Delta Stewardship Council**
  Kevan Samsam

Independent Commissions,Boards

- [ ] **Delta Protection Commission**
  Michael Machado
- [ ] **OES (Office of Emergency Services)**
  Dennis Castrillo
- [■] **Native American Heritage Comm.**
  Debbie Treadway
- [ ] **Public Utilities Commission**
  Leo Wong
- [▨] **Santa Monica Bay Restoration**
  Guangyu Wang
- [ ] **State Lands Commission**
  Jennifer Deleong
- [ ] **Tahoe Regional Planning Agency (TRPA)**
  Cherry Jacques

Business, Trans & Housing

- [ ] **Caltrans - Division of Aeronautics**
  Philip Crimmins
- [ ] **Caltrans - Planning**
  Terri Pencovic
- [ ] **California Highway Patrol**
  Suzann Ikeuchi
  Office of Special Projects
- [ ] **Housing & Community Development**
  CEQA Coordinator
  Housing Policy Division

Dept. of Transportation

- [ ] **Caltrans, District 1**
  Rex Jackman
- [ ] **Caltrans, District 2**
  Marcelino Gonzalez
- [ ] **Caltrans, District 3**
  Eric Federicks – South
  Susan Zanchi - North
- [ ] **Caltrans, District 4**
  Erik Alm
- [ ] **Caltrans, District 5**
  David Murray
- [ ] **Caltrans, District 6**
  Michael Navarro
- [▨] **Caltrans, District 7**
  Dianna Watson
- [ ] **Caltrans, District 8**
  Dan Kopulsky
- [ ] **Caltrans, District 9**
  Gayle Rosander
- [ ] **Caltrans, District 10**
  Tom Dumas
- [ ] **Caltrans, District 11**
  Jacob Armstrong
- [ ] **Caltrans, District 12**
  Maureen El Harake

Cal EPA

Air Resources Board

- [■] All Other Projects
  Cathi Slaminski
  - [ ] Transportation Projects
    Nesamani Kalandiyur
  - [ ] Industrial Projects
    Mike Tollstrup
- [ ] **State Water Resources Control Board**
  Regional Programs Unit
  Division of Financial Assistance
- [ ] **State Water Resources Control Board**
  Jeffery Werth
  Division of Drinking Water
- [▨] **State Water Resources Control Board**
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- [▨] **State Water Resouces Control Board**
  Phil Crader
  Division of Water Rights
- [ ] **Dept. of Toxic Substances Control**
  CEQA Tracking Center
- [ ] **Department of Pesticide Regulation**
  CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

- [ ] **RWQCB 1**
  Cathleen Hudson
  North Coast Region (1)
- [ ] **RWQCB 2**
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- [ ] **RWQCB 3**
  Central Coast Region (3)
- [▨] **RWQCB 4**
  Teresa Rodgers
  Los Angeles Region (4)
- [ ] **RWQCB 5S**
  Central Valley Region (5)
  - [ ] **RWQCB 5F**
    Central Valley Region (5)
    Fresno Branch Office
  - [ ] **RWQCB 5R**
    Central Valley Region (5)
    Redding Branch Office
- [ ] **RWQCB 6**
  Lahontan Region (6)
  - [ ] **RWQCB 6V**
    Lahontan Region (6)
    Victorville Branch Office
- [ ] **RWQCB 7**
  Colorado River Basin Region (7)
- [ ] **RWQCB 8**
  Santa Ana Region (8)
- [ ] **RWQCB 9**
  San Diego Region (9)

- [ ] **Other** SAN GABRIEL AND LA RIVER WATERSHED CONSERVANCY
- [▨] ~~LAC~~ SANTA MONICA MTNS Conservancy

Last Updated 8/27/2014

ELIZABETH BYRNE DEBREU
777 Arden Road
Pasadena, California 91106

October 8, 2014

Mr. Gregg BeGell, P.E.
County of Los Angeles Department of Public Works
Project Management Division II
900 South Fremont, 5th Floor
Alhambra, CA 91803

Via Email: gbegell@dpw.lacounty.gov

Re: Restoration of Baldwin Lake

Dear Mr. BeGell:

I write to urge you to make the restoration of Baldwin Lake a high priority as you lead the effort to create the EWMP for the Rio Hondo Watershed.

The restoration of Baldwin Lake, including modifications to the depth of the lake and adaptation of Tule Pond as a bioswale, would enhance Baldwin Lake's water quality and give it a more significant water collection function while simultaneously enhancing its scenic, educational, and historic value at the center of the Los Angeles County Arboretum and Botanic Garden.

The restored lake would also provide an exceptional opportunity to educate the public about regional water management, home and community water conservation, and the role of the Raymond Basin and the other water resources in sustaining us. It is a key resource that serves over 330,000 visitors per year, including more than 16,000 elementary school students on field trips.

As a member of the board of the Los Angeles Arboretum Foundation, the County's non-profit partner in operating the Arboretum, I stand ready to help leverage public dollars to realize Baldwin Lake's unique potential to provide direct public benefit in a multitude of ways. It is the ideal project both to enhance the watershed function and serve the public with remarkable educational, ecological, and scenic benefits.

I respectfully submit that the County include the Baldwin Lake in the Rio Hondo Enhanced Watershed Management Plan.

Very truly yours,

Elizabeth Byrne Debreu
Board Member, Los Angeles Arboretum Foundation

Laura Rocha

From: Osmena, Genevieve <gosmena@dpw.lacounty.gov>
Sent: Monday, November 10, 2014 10:03 AM
To: Dale or Miriam Carter
Subject: RE: Baldwin Lake/Enhanced Watershed Management Plan

Mr. Carter,

Thank you for your email regarding Baldwin Lake at the LA Arboretum. I have added your contact information to the stakeholder list for the Rio Hondo/San Gabriel River Water Quality Group to receive notifications of future stakeholder meetings regarding the group's Enhanced Watershed Management Program (EWMP). We anticipate the next stakeholder meeting to occur in early to mid-Spring of next year to discuss the progress of the EWMP process with interested stakeholders. I have also forwarded your email to the group members for their consideration as they continue to discuss and develop their EWMP plan.

Thanks again for your comments.

Genevieve Osmeña, P.E.
County of Los Angeles Department of Public Works
East Unincorporated County MS4 Permit Compliance
Watershed Management Division
(626) 458-3978
gosmena@dpw.lacounty.gov

From: Dale or Miriam Carter [mailto:dmcart@att.net]
Sent: Wednesday, October 29, 2014 5:01 PM
To: Begell, Gregg - Consultant; Osmena, Genevieve
Cc: Snider Sandy; Schulhof Richard
Subject: Baldwin Lake/Enhanced Watershed Management Plan

Dear Mr. Begell and Ms. Osmena

This message is to encourage you to include the restoration of the Los Angeles County Arboretum's Baldwin Lake as a part of the Enhanced Watershed Management Plan for the Rio Hondo Watershed. To me, the following points emphasize the importance of this lake:

- It is one of the very few lakes easily accessible to the public in the San Gabriel Valley area, or even the Los Angeles basin
- It is an important environmental asset to the wildlife that is in or passes through the San Gabriel Valley
- It has historical significance regarding E.J. Baldwin's life as the founder of the city of Arcadia
- It has historical significance pertaining to the entertainment industry as a movie and TV location, and consequently is a tourist attraction
- It is geologically important and interesting as the last (I think) remaining sag pond along the Raymond earthquake fault

I encourage you to support restoring and including the lake in whatever watershed management plans evolve.

Regards,

Dale Carter
Arboretum volunteer and docent

Laura Rocha

From: Begell, Gregg - Consultant <gbegell@dpw.lacounty.gov>
Sent: Monday, September 29, 2014 4:32 PM
To: Crumpacker, Andrea; David Pohl; Tom Barnes
Subject: FW: COMMENTS ON NOTICE OF PREPARATION FOR DRAFT PROGRAM EIR FOR ENHANCED WATERSHED MANAGEMENT PROGRAMS FOR L.A. COUNTY

A clone of Rex's comment.

Gregg BeGell P E
Project Manager
Project Management Division II

From: Donna Murray [mailto:dlmurray47@gmail.com]
Sent: Monday, September 29, 2014 4:28 PM
To: Begell, Gregg - Consultant
Subject: COMMENTS ON NOTICE OF PREPARATION FOR DRAFT PROGRAM EIR FOR ENHANCED WATERSHED MANAGEMENT PROGRAMS FOR L.A. COUNTY

You have no specific projects to analyze for environmental impacts. You are attempting to analyze the environmental impact of words, not specific actions. It is impossible to analyze the impacts of no stated physical projects, just as it is impossible to analyze those unstated projects' impacts on the environmental setting, ie., the proper baseline, because you have no specific locations for these unspecified projects. Thus all you can say is to analyze the entire county. The two most essential parts of an environmental analysis are missing here: specific projects and specific sites. You have the process all backwards here, and thus, commenting on this NOP in any specific manner is impossible.

Some background: In 2002, local governments settled lawsuits and agreed to consent decrees and promised to stop violations of bacterial health codes at our beaches by 2021. This agreement gave the public agencies an extension beyond the original deadline of 2013 but only if the projects created new parkland and river corridors that could catch and clean water before it fouled the beaches.

In 2006, L.A. City proposed its first big plan under this agreement, an Implementation Plan for the Santa Monica Bay Beaches watersheds. This plan was sent back for redrafting by the RWQCB as it only reached 2% of its target and thus, would not accomplish the goal in the consent decree.

Also in 2006, L.A. city proposed the Integrated Resource Plan which mainly focused on building 25 Hyperion-style urban runoff treatment plants which would have cost the average homeowner ratepayer $400 a month. This plan went nowhere.

In 2012, the County Supervisors tried to quietly approve a $300 million per year property tax hike to build a non-existent list of runoff cleansing and capturing projects. Howls of opposition arose and that plan went nowhere. The public wanted to know what they were paying for.

Now, you are finally starting to design the cleanup plan. But how can you ask the public to weigh in on the scope of the environmental analysis of that plan, when your description of that plan contains no specifics? Your stated plan to defer the environmental analysis of specific project impacts to when each one is up for approval thus ignores the cumulative impacts and therefore is "piecemealing", by starting major momentum of a project that is composed of many necessary parts, yet deferring analysis and the controversy to a multitude of separate EIRs and CEQA documents and public hearings, all the while public input is diffused. We never get to weigh in on whether we like the complete plan because the Program EIR has no specifics to arouse concern and the real project discussion is delayed until much later in a way that requires massive efforts by the public to keep track of the success of the big plan.

The people who will pay for this plan want to see the specifics before you raise our taxes to pay for it. We want expanded and unpaved river corridor parks. We do not want the plan to include converting existing wetlands and wildlife habitat into pollution dumps and sumps. We want what we were promised, not a lame compromise that puts the cleanup burden on existing public lands, parks and house front yards. We want a complete plan for us to judge whether it will accomplish its promises and goals before you produce an EIR, not the other way around.

Please put me on the notification list for all actions relating to this project. Thank you.

Donna Murray
8734 Wiley Post Av
Los Angeles, CA 90045

DEPARTMENT OF TRANSPORTATION
DISTRICT 7-OFFICE OF TRANSPORTATION PLANNING
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
PHONE (213) 897-9140
FAX (213) 897-1337
www.dot.ca.gov

Serious drought.
Help save water!

September 29, 2014

Mr. Gregg BeGell
County of Los Angeles Dept. of Public Works
Project Management Division II
900 South Fremont Avenue, 5th Floor
Alhambra, CA 91803

Re: **Enhanced Watershed Management Programs**
Notice of Preparation
IGR#140912FL
Vic.: LA/Various watersheds locations

Dear Mr. BeGell:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The proposed project will prepare a Program Environmental Impact Report (PEIR) for the project identified, such as the 12 separate Enhanced Watershed Management Programs (EWMPs); it will be prepared as a collective effort among the Los Angeles County Flood Control District (LACFCD) and the applicable agencies in each respective EWMP.

We would like to remind you that storm water run-off is a sensitive issue for Los Angeles and Ventura counties. Please be mindful that projects need to be designed to discharge clean run-off water.

Any work to be performed within the State Right-of-way will need an Encroachment Permit and any transportation of heavy construction equipment and/or materials which requires the use of oversized-transport vehicles on State highways will require a Caltrans transportation permit. We recommend that large size truck trips be limited to off-peak commute periods. In addition, a truck/traffic construction management plan is needed for this project.

If you have any questions, please feel free to contact me at (213) 897-9140 or project coordinator Frances Lee at (213) 897-0673 or electronically at frances.lee@dot.ca.gov.

Sincerely,

DIANNA WATSON
Branch Chief, Community Planning & LD IGR Review

cc: Scott Morgan, State Clearinghouse

Laura Rocha

From: Begell, Gregg - Consultant <gbegell@dpw.lacounty.gov>
Sent: Tuesday, September 30, 2014 7:08 AM
To: Crumpacker, Andrea; David Pohl; Bellizia, Thomas W.
Subject: FW: COMMENTS ON NOTICE OF PREPARATION FOR DRAFT PROGRAM EIR FOR EWMP'S FOR L.A. COUNTY

Another clone

Gregg BeGell P E
Project Manager
Project Management Division II

From: douglaspfay@aol.com [mailto:douglaspfay@aol.com]
Sent: Monday, September 29, 2014 9:19 PM
To: Begell, Gregg - Consultant
Cc: rexfrankel@yahoo.com
Subject: COMMENTS ON NOTICE OF PREPARATION FOR DRAFT PROGRAM EIR FOR EWMP'S FOR L.A. COUNTY

Dear DWP Representatives and Interested Parties,

I understand why no one but Rex Frankel attended the NOP hearing on September 9th in Marina Del Rey. You have no specific projects to analyze for environmental impacts. You are attempting to analyze the environmental impact of words, not specific actions. It is impossible to analyze the impacts of no stated physical projects, just as it is impossible to analyze those unstated projects' impacts on the environmental setting, ie., the proper baseline, because you have no specific locations for these unspecified projects. Thus all you can say is to analyze the entire county. The two most essential parts of an environmental analysis are missing here: specific projects and specific sites. You have the process all backwards here, and thus, commenting on this NOP in any specific manner is impossible.

Some background: In 2002, local governments settled lawsuits and agreed to consent decrees and promised to stop violations of bacterial health codes at our beaches by 2021. This agreement gave the public agencies an extension beyond the original deadline of 2013 but only if the projects created new parkland and river corridors that could catch and clean water before it fouled the beaches.

In 2006, L.A. City proposed its first big plan under this agreement, an Implementation Plan for the Santa Monica Bay Beaches watersheds. This plan was sent back for redrafting by the RWQCB as it only reached 2% of its target and thus, would not accomplish the goal in the consent decree.

Also in 2006, L.A. city proposed the Integrated Resource Plan which mainly focused on building 25 Hyperion-style urban runoff treatment plants which would have cost the average homeowner ratepayer $400 a month. This plan went nowhere.

You also were to include identifying a location(s) adjacent to the Oxford Lagoon Bird Conservation Area where a water treatment and recycling facility could be located. This was intended to be a mandatory component of the future, now current, Oxford Basin Multiuse Enhancement Project. The City of Los Angeles Thatcher Maintenance Yard is an ideal location for a facility that could serve Marina del Rey and the Oxford Triangle neighborhood. The Oxford Basin Project should not proceed, including Prop 84 funding, until a recycled water component is included as promised.

In 2012, the County Supervisors tried to quietly approve a $300 million per year property tax hike to build a non-existent list of runoff cleansing and capturing projects. Howls of opposition arose and that plan went nowhere. The public wanted to know what they were paying for.

Now, you are finally starting to design the cleanup plan. But how can you ask the public to weigh in on the scope of the environmental analysis of that plan, when your description of that plan contains no specifics? Your stated plan to defer the environmental analysis of specific project impacts to when each one is up for approval thus ignores the cumulative impacts and therefore is "piecemealing", by starting major momentum of a project that is composed of many necessary

parts, yet deferring analysis and the controversy to a multitude of separate EIRs and CEQA documents and public hearings, all the while public input is diffused. We never get to weigh in on whether we like the complete plan because the Program EIR has no specifics to arouse concern and the real project discussion is delayed until much later in a way that requires massive efforts by the public to keep track of the success of the big plan.

The people who will pay for this plan want to see the specifics before you raise our taxes to pay for it. We want expanded and unpaved river corridor parks. We do not want the plan to include converting existing wetlands and wildlife habitat into pollution dumps and sumps. We want what we were promised, not a lame compromise that puts the cleanup burden on existing public lands, parks and house front yards. We want a complete plan for us to judge whether it will accomplish its promises and goals before you produce an EIR, not the other way around.

Please put me on the notification list for all actions relating to this project.

Respectfully submitted,

Douglas Fay
644 Ashland Ave Apt A
Santa Monica, CA 90405
email: douglaspfay@aol.com

October 16, 2014

Enrique Huerta
At-Large Stakeholder
7345 Nada Street
Downey, CA 90242
ehuerta28@gmail.com
(323) 573-0129

Gregg BeGell, P.E.
County of Los Angeles Department of Public Works
Project Management Division II
900 South Fremont Avenue, 5th Floor
Alhambra, CA 91803
(626) 300-3298
gbegell@dpw.lacounty.gov

RE: Public Comments: Notice of Preparation of a Draft Program Environmental Impact Report for Enhanced Watershed Management Programs

Dear Mr. BeGell:

Thank you for your efforts on the Notice of Preparation (NOP) for the Draft Program Environmental Impact Report for the Enhanced Watershed Management Programs (EWMP). I am confident your work will result in an informative and precise first tier final Program Environmental Report (PEIR) that is adequate, complete, and a good faith effort at full disclosure. The purpose of my comments, per Section 15168(c)(5) of the 2014 California Environmental Quality Act (CEQA) Statute and Guidelines, is to assist in the creation of a PEIR "that deals with the effects of the program as specifically and comprehensively as possible." Additionally, I realize that by doing "a good and detailed analysis of the program, many subsequent activities could be found to be within the scope of the project described in the program EIR, and no further environmental documents would be required."

I recognize and appreciate the herculean task involved for the Flood Control District and it is my sincere attempt to keep my comments relevant to the NOP. As such, I have attempted to draft my comments in a reader-friendly manner that identify the issue and propose a feasible solution(s). My comments only address the content of the NOP.

COMMENTS ON THE CONTENT OF THE NOP

1. Introduction

(Page No. 2) Please elaborate on the approval process. It would be informative if the role between the Los Angeles County Flood Control District (LACFCD) and the Los Angeles Regional Water Quality Control Board (LARWQCB) is further explained. The introduction does a good job explaining the steps involved in the EWMP process, but lacks clarity on the connection between the PEIR and LARWQCB. In particular, the sentence in mind states, "The LARWQCB is responsible for approval of the EWMPs in compliance with the MS4 Permit. Implementation of the EMWPs would occur following approval by the LARWQCB."

If the LARWQCB approves the EWMPs then who adopts the final PEIR? How does this PEIR fit into the responsibilities and mandates of the LARWQCB? All 12 of the EWMPs specify a date when the final EWMPs will be submitted (June 2015) to the LARWQCB, but no mention is made about the PEIR. Will the Lead Agency submit a EWMP packet on behalf of all 12 EWMPS and will the PEIR be a part of that packet? In addition, the NOI submitted to the LARWQCB by each Watershed Management Group (WMG) span two programs: the EWMPs 'and' Coordinated Integrated Monitoring Programs (CIMP). Does this PEIR also analyze the CIMP?

(Page 5) The opening paragraph states that "The primary approach to each of the EWMPs, as identified in the Draft Work Plans, includes identifying community-friendly, cost-effective methods of reducing urban runoff pollution and incorporating distributed and centralized structural and nonstructural watershed control measures for a multi-pollutant, multi-benefit approach." However, a review of all 12 EWMPs indicates that there was no cost/benefit analysis completed to substantiate the "cost-effectiveness" of these methods. Please identify any additional documentation supporting this claim.

(Page No. 5) Please clarify the use of the term "project." The final sentence in the first paragraph states, "The EWMPs will also evaluate multi-benefit regional projects that will retain (through infiltration or capture and reuse) the stormwater quality design volume (85th percentile storm for 24 hours) for the runoff from the contributing drainage area." Evaluating, I'm assuming site-level projects with regional benefits, at the PEIR level increases the dissonance between the goal of an EIR, as Section 21002.1(d) of the CEQA Statute states, "to consider the effects, both individual and collective, of all activities involved in a project," and the inherent collective geographic scope of the PEIR. I reviewed all 12 of the EWMPs and CIMPs. All 12 of the EWMPs do not identify projects currently in the works and no analysis is provided. The EWMPs seem to be evaluating plans and policies. Clarification of the term project would be beneficial in order to clearly understand the scope of this PEIR.

In addition, Section 21003 states that, "All persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical, and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment." In an effort to avoid the possibility of imposing an unfunded mandate on local cities and/or non-profit groups to undertake the second tier of this PEIR, the prudent use of public funds, and to promote a second tier CEQA process that is streamlined, I feel it would be beneficial to incorporate an analysis of current projects in the "pipeline."

This is critical because a review of the Greater Los Angeles County Integrated Regional Water Management (IRWM) database reveals over 190 water resources projects with regionally-significant benefits in the pipeline (Appendix A). The IRWM is a funding mechanism that encourages regional and local collaboration in the design of sustainable water resources

infrastructure. To date, regional agencies, cities, non-profits and community representative groups, have collaborated and submitted project proposals of regional significance. Not all of these projects incorporate BMPs, per say (many do), and many have already been deemed categorically exempt. Additional vetting would need to take place in order to identify projects in-line with a low impact development ideal to collaborate and integrate compliance strategies that are based on a multi-pollutant approach with a focus on green infrastructure that maximize the retention and use of urban runoff as a resource for recharging aquifers and for irrigation and other uses.

If this nexus to analyze the impacts of regional projects is deemed reasonably feasible, further vetting of the projects would be required to understand their CEQA status. The question is who conducts this analysis, the LACFCD or the WMGs? This is important to figure out since Section 15152(b) of the CEQA Statute and Guidelines states that, "Tiering does not excuse the lead agency from adequately analyzing reasonably foreseeable significant environmental effects of the project and does not justify deferring such analysis to a later tier EIR or negative declaration."

(Page 5) The second paragraph states, "The PEIR will provide a program-level assessment of the overall permit compliance effort, focusing particularly on the structural watershed control measures proposed in each of the 12 EWMP areas." The project list on Appendix A identifies projects aiming to implement watershed control measures throughout Los Angeles County. Many of these projects are categorically exempt, have concluded their own environmental assessment or already constructed, however, the database (L.A. County Water Plan) where I retrieved these does not clearly indicate this information. Furthermore, none of the 12 EWMPs under consideration undertook this task to see how the proposed physical changes within their EWMP may or may not comply with the goals and objectives of their

respective plans and policies. In an effort to, as Section 15152© describes, “avoid deferring the potential significant impacts to the second tier and possibly preventing the adequate identification of significant effects of the planning approval at hand,” it may be worthwhile to include this list in the PEIR analysis or have the WMGs revise their draft plans to incorporate this analysis.

1.1 Project Location

The description of the location could be augmented by elaborating on the environmental context. That is, adding maps identifying the tributaries, rivers, channels, etc. within the 12 watersheds could increase understanding of the local watershed functional characteristics. This detailed information is contained in most of the individual EWMPs. A reference to the website location of each respective EWMP could suffice.

Additionally, there is no reference to the types of soils that underlie the 12 EWMPS. The EWMPs provide a summary of these soil characteristics. A reference to the website location of each respective EWMP would be helpful. It is important to know the soil types and their respective infiltration rates in order to understand the feasibility of implementing certain structural BMPs. I realize that this may be covered in more depth under the Geology, Soils and Seismicity category, but there is no clear reference in the accompanying summary.

2. BACKGROUND

2.1 Stormwater/Water Quality

(Page 7) The first paragraph states, “Discharges may adversely affect receiving surface water quality with pollutants such as bacteria, nutrients (nitrogen and phosphorus), aluminum, copper, lead, zinc, diazinon, and cyanide. Aquatic toxicity, particularly during wet weather, is

also a concern. Stormwater and non-stormwater discharges of debris and trash are also a pervasive water quality problem in the Los Angeles region." It would be beneficial to add the types of pollution stemming from the natural environment (non-anthropogenic), too. What kind of pollutants exists in the soils being eroded from natural settings and vacant parcels of land?

2.2 Total Maximum Daily Loads

The final sentence in this paragraph states, "LARWQCB and United States Environmental Protection Agency (USEPA) have established 33 TMDLs that identify Los Angeles County MS4 discharges as one of the pollutant sources causing or contributing to these water quality impairments." Please elaborate on the NPDES permit process. Is there a need for discretionary approval of the EWMPs or PEIR by the USEPA? Is there a need for the USEPA to issue a TMDL or other permit? If so, is there a need to do a concurrent Environmental Impact Statement?

2.3 MS4 Permit

(Page 8) This section states. "The intent of the EWMP is to comprehensively evaluate opportunities, within the participating Permittees' collective jurisdictional boundaries, for collaboration among Permittees and other partners on multi-benefit regional projects that, wherever feasible, retain non-stormwater runoff and also address flood control and/or water supply." Has the United States Army Corp of Engineers (USACE) been a part of these collaborative efforts? Are any of their existing infrastructure being directly or indirectly impacted by the EWMPs? Is there a need for discretionary approval of the EWMPs or PEIR by the USACE? Is there a need for the USACE to issue a permit related to the EWMPs? If so, is there a need to do a concurrent Environmental Impact Statement?

3. Enhanced Watershed Management Plans

As mentioned in the first comment under the Introduction heading, please elaborate on the approval process. Specifically, how the PEIR fits into the LARWQCBs approval of the EWMPs.

4.1.1 Regional Structural BMPs

The second paragraph states, “Opportunities for Regional BMPs will be identified and evaluated within and across subwatersheds, with focus on the multi-benefit potential for capture and reuse of wet-weather flows within variable drainage areas.” What method and level of detail will be used to identify and evaluate BMPs? This paragraph goes on to state that, “Potential project locations may include areas with open spaces, whether they are within parks, large parking lots, or vacant spaces,” indicating that a geographically site-specific analysis is appropriate under this PEIR. Collectively, there is over 190 regional projects identified in Appendix A being proposed by the various members of the WMGs. Based on the site-specific potential project locations stated above, is it feasible to include an analysis of the project list (Appendix A)?

5 Potential Environmental Impacts

This section (nor the LACoH2Osheds website) does not reference the completion of an Initial Study per Section 15063©(1). How did the Lead Agency identify the effects determined not to be significant? Is there an explanation of the reasons for determining that potentially significant effects would not be significant?

Sincerely,

Enrique Huerta, M.S.

Appendix A

Comment Letter to the LACFCD: Draft PEIR

	Project Name	Project Proponent	Project Description
1	25 mgd Sea Water Desalinization Plant in West Basin	West Basin Municipal Water District	The project proposes to construct a 25mgd Seawater Desalination Plant in West Basin's service area for potable water use. First, a Demonstration Plant will be necessary to evaluate the water quality performance and treatment stability, assess efficient energy recovery devices, optimize operational performance utilizing full scale process equipment, and to acquire the necessary data to achieve regulatory compliance and approval. West Basin and its partners will perform the full battery of water quality analyses to ensure that the demonstration project meets all Federal and State Drinking Water Standards. With the knowledge gained by operating the Demonstration Plant, West Basin expects to move forward with the planning, design, and construction of a full scale 25,000 AFY seawater desalination and education facility. West Basin anticipates operating the Demonstration Plant for at least two years while plans are being completed and finalized for the full-scale plant. The Demonstration Facility is in design.
2	AMR Conversion Project	Los Angeles County Waterworks District No. 29	The project consists of replacing the older water meters in Waterworks District No. 29. The District maintains approximately 7,700 water meters in Malibu and Topanga. About 40 percent of the meters are older than 15 years and 30 percent are 20 years or older. Meters lose accuracy over time, representing unaccounted water consumption in the District. Older meters typically under-measure water use. Replacing old water meters with automated meter reading (AMR) meters will yield timely, reliable water consumption patterns for detecting leaks and producing accurate customer bills. Higher bills with higher water use volumes will alert District customers about their water consumption habits, which is expected to encourage conservation. The current practice is to replace meters as the meters stop functioning or become unreadable. About 20% of the water meters in Malibu and Topanga have been replaced with AMR meters.
3	Agoura Road Gap Recycled Water System Expansion	Las Virgenes Municipal Water District	The project would extend the existing recycled water line along Agoura Road to serve existing customers who use potable water for landscape irrigation. Pipeline for this project is estimated at 9250 feet of 8 inch pipe and would connect to existing recycled water pipelines on both east and west sides of the extension. This would connect the gap that exists between Reyes Adobe Road and Lewis Road and improve the system hydraulics and reliability of service to customers. The estimated maximum daily demand for the Agoura Road Extension is 73 gpm.

4	Agua Amarga Lunada Canyon Habitat Restoration	Palos Verdes Peninsula Land Conservancy & City of Rancho Palos Verdes	Restore 20 acres at Agua Amarga Reserve, to provide habitat for the Federally threatened Coastal California gnatcatcher, the Federally endangered Palos Verdes blue butterfly, and the rare cactus wren. A one-mile trail in the Reserve continues to the coast. A year-round flow of water is discharged to the head of Lunada Canyon via a County of Los Angeles storm drain; the water then flows below ground through the canyon, the course of an historic blue line stream, and re-emerges at its confluence with Agua Amarga Canyon, also a blue-line stream that flows into the Santa Monica Bay. Invasive plant species provide little water infiltration and threaten to spread to the pristine lower canyon. The project will remove invasive plants, restore 18 acres of riparian and coastal sage scrub; install 2 acres of cactus scrub in highly degraded fuel modification areas; improve trails and add trail signage. Interpretive signage will educate hikers about creating wildlife-friendly fuel modification zone.
5	Aliso Creek - Limekiln Creek Restoration Project	City of Los Angeles Bureau of Sanitation Watershed Protection Division	Stormwater runoff would be diverted from Aliso Creek and from Limekiln Creek and stormwater runoff generated on site will be treated. In addition to providing water quality benefits, the project will result in the creation of self-sustaining riparian woodland vegetation and other re-vegetated areas, as well as providing recreational opportunities to area residents.The site has an area of approx. 11.8 acres and is currently used as a flood control facility, provides open space, and serves as part of Vanalden Park.Wet weather runoff and dry weather runoff from an approx. 12,091 acres that drains to the confluence of Aliso Creek and Limekiln Creek is going to be captured and conveyed to the project site for treatment.On-site generated flows will also be captured and treated.Proposed BMPs to treat captured water:Low flow channel diversions and pumping:Pre-screening devices, Bioswales, Vegetated detention basins, Landscaping with native upland and riparian species and Installing decomposed granite pathways.
6	Alondra Regional Park	Successor Agency, City of Compton	Alondra Regional Park is a multi-benefit project that serves disadvantaged communities while meeting IRWMP water management objectives. The entire site is currently an empty 18-acre lot owned by the City of Compton. This proposal is for Phase I of the project and covers 12 acres on the southern half of the parcel. The park provides recreational opportunities while improving surface water discharges into the Dominguez Channel Watershed. The project site sits low on the drainage area and will capture 1.5AF of stormwater. The park features a swale and daylighted stream to remove nutrients and pollutants that otherwise flow to local waterways. The large biofiltration field will reduce peak flows, improve water quality and occasionally serve as a recreational field. Surface water quality improvements would help the region meet requirements under the Municipal Separate Storm Sewer System Permit. The project also includes native shrubs and trees that will increase habitat for birds, butterfly species and mammals.

7	Alternative Decker Canyon Recycled Water Extension	Las Virgenes Municipal Water District	As with the original Decker Canyon Recycled Water Extension pipeline route, this alternate would primarily serve the Malibu Golf Club, the largest potable water user in the LVMWD service area. The 2007 Master Plan advocated that serving the golf course with recycled water could be an important strategy for relieving eventual stress on the potable system. The longer alternative route used in this project would also serve other demands along the way. In addition to the golf club, significant recycled water demands are expected to come from a new development (Triangle Ranch) and conversion of the existing Medea Valley ranchettes to recycled water use. The project is projected to deliver 459 AF/Y of recycled water, offsetting the same amount of potable demand that would occur if the extension were not built.
8	Andrews Park Subsurface Storage, Use and Infiltration Project	City of Redondo Beach	The project will consist of a diversion, conveyance pipes, a gross solids removal device (GSRD), an irrigation storage tank, and an infiltration gallery. Dry- and wet-weather flows will be diverted from the existing storm drain up to the maximum diversion flow rate and will then enter the storage tank through the conveyance pipe and GSRD. Once the storage tank reaches a depth of 1.5 feet, flows will be pumped to be used for onsite subsurface irrigation. When the storage volume of the irrigation tank reaches capacity, runoff will flow via an overflow pipe into the infiltration gallery, where the water will infiltrate subsurface soils. When continual flows fill the infiltration gallery and irrigation storage vault to storage capacity, diverted flows will back-up through the diversion piping and prevent additional flow diversion until capacity is freed up due to irrigation use and/or infiltration losses.
9	Arroyo Seco Confluence Gateway	Arroyo Seco Foundation	The Confluence Gateway Greenway Program will restore a 1/3 mile stretch of urban land alongside the Arroyo Seco, in the Arroyo Seco Scenic Byway Corridor, into a riparian greenway and open space park with native landscaping and a bicycle/pedestrian path. Not only would the project embody a first step in enhancing river access and recreation opportunities, it would provide a key link between the planned Los Angeles River greenways at the confluence and the Metro Rail station in the historic Lincoln Heights neighborhood, thus enabling light rail and bicycle access to the Arroyo Seco and the Los Angeles River. Ultimately, the Arroyo Seco greenway is envisioned to extend to South Pasadena, and this initial segment at the confluence would be an important hub in the regional river parkway and bicycle trail network.

10	Arroyo Seco North Branch Creek Daylighting	Arroyo Seco Foundation	Naturalize north branch storm drain and restore stream through Sycamore Grove Park. Primary Objectives Addressed by the Project: By re-establishing an urban stream, this project addresses water quality, riparian habitat restoration, groundwater recharge, flood management, and public education. The Sycamore Grove Park site is approximately 800 feet long and 400 feet wide. This 8-acre site is located in northeast Los Angeles and situated west of the SR-110 (). This site encompasses Sycamore Grove Park and is bounded by South Avenue 49 to the northeast, the SR-110 to the east, medium density residential uses to the south, and North Figueroa Street to the west. Sycamore Grove Park is a landscaped area consisting of a large lawn, playground, and parking area. The North Branch tributary is contained within a storm drain beneath Sycamore Grove Park.
11	Baldwin Lake	Los Angeles Arboretum Foundation	For centuries the waters of Baldwin Lake have sustained human endeavor. A rich historic site, its role began in the Native America period when springs and marsh, precursors to today's lake, supported nearby habitation. In the late 19th Century, Elias Jackson Baldwin chose the Lake as the center for agriculture and land development that shaped the establishment of the east San Gabriel Valley. Today, as the centerpiece of the Los Angeles County Arboretum, the Lake is an educational and scenic resource serving hundreds of thousands of visitors. Looking to the future, Baldwin Lake is envisioned as a model for community-based environmental stewardship and regional approaches to water management and conservation. Ideally located at the edge of the Raymond Basin aquifer, the Lake offers great potential as the nexus for water management and ground water recharge for the Arboretum's 127 acres, as well as the surrounding urban watershed. Educational programming that interprets the history of the Lake, particul
12	Ballona Creek Water Quality and Beach Improvement & Beneficial Use Project	City of Los Angeles Bureau of Sanitation Watershed Protection Division	Project is to implement the valuable uses of stormwater and to improve the water quality in Ballona Creek Watershed. Ballona Creek Low Flow Treatment Facility (LFTF), also known as North Outfall Treatment Facility (NOTF), is one of several projects proposed in Ballona Creek TMDL Implementation Plans for Bacteria, Metals, and Toxic Pollutants. The LFTF includes a 1 million gallon storage facility and has the capacity to treat up to 150 cfs, including screening of coarse, fine sediments, and disinfection with sodium hypochlorite. NOTF was constructed in 1987 by City of Los Angeles. The project proposes to use the existing treatment facility and construct a low-flow diversion structure in Ballona Creek Channel to divert and treat full dry-weather flow and partial wet-weather flow. 65 percent of Ballona Creek Watershed (85 square miles) is located upstream of the Project, with average dry-weather flows ranging from 14 to 25 cfs. Treatment will include coarse screens, sedimentation, filtration, and disinfection.

13	Be A Water Saver Water Conservation Program	City of Burbank Water and Power	The City of Burbank proposes to expand and increase water conservation through the expansion of a comprehensive indoor/outdoor financial incentive program that will result in immediate and sustainable water savings. The proposed Rebate Program to install 1,300 HE toilets, replace 300,000 square feet of turf with native landscapes, capture and reuse rain water 3 million gallons of rain water with rain barrels, and increase water conservation education efforts will save an estimated 500 AF of water annually. Grant funding for the proposed project will facilitate greater water savings by providing funding for greater levels of participation sooner than would be realized under typical funding efforts. Furthermore, these benefits will be realized faster by utilizing a proven system for conservation, a truly ready to proceed project. This project has the potential to double participation levels.
14	Bette Davis Park Water Recycling Project	LADWP	This project will consist of planning, design, and construction of approximately 4,625 feet of new 8-inch PVC and Ductile Iron recycled water pipeline to extend Glendale's recycled water distribution system from the intersection of Flower St. and Grandview Ave. to Bette Davis Park. Approximately 4,300 feet of pipeline will be installed within Glendale's city right of way. Through an Agreement with the City of Glendale, this project will be designed and constructed by Glendale's contractors and LADWP will reinburse Glendale for the costs. This will reduce the City's potable demand for non-potable uses. This project will offset up to 75 AFY of potable water with recycled water.
15	Big Dalton Sluiceway Rehabilitation	Los Angeles County Flood Control District	This project will upgrade the sluiceway to function as a low level outlet for regulating flows under high reservoir pressure and repair various facility components for the dam. The existing sluice gate at the upstream end is to be replaced with a new heavy duty hydraulic actuated gate, the sluiceway is to be lined with new pipe for the entire length, and a throttling valve is to be installed at the outlet. Storm releases through the sluiceway will reduce the rate of sediment accumulation and prevent sediment deposits at the face of the dam. Incoming sediments during storm flows could be routed through the reservoir to restore a more natural sediment transport system and maintain reservoir capacity
16	Big Dalton Spreading Grounds Improvements	Los Angeles County Flood Control District	The proposed project will modify and motorize the diversion box at Big Dalton Spreading Grounds to better control flows taken into the facility. The spreading basins will be reconfigured to increase percolation rates and storage capacity. An intake will be constructed from Little Dalton Diversion Channel so that additional storm flows can be diverted to the facility. A proposed outlet from Metropolitan Water District's PM-26 imported water line to the Little Dalton Diversion channel will enable imported water to be recharged at the spreading grounds.

17	Big Rock Bypass	Los Angeles County Waterworks District No. 29	The project consists of constructing three 18-inch diameter bypass water pipelines approximately 1,500 feet in length within the areas of active landslides along Pacific Coast Highway. This bypass will serve as a permanent replacement of an existing 30-inch diameter water pipeline that has experienced significant breaks resulting in large water loss. The proposed pipeline will be raised to a shallow trench and protected by a reinforced concrete box covered with steel plates to provide quick access if any leakage occurs. In addition, 18-inch Flexible Expansion Joints will also be installed at several locations with the areas of the active landslides to prevent damage or rupture of pipelines from ground movement.
18	Big Tujunga Dam Spillway Dam	Los Angeles County Flood Control District	Construction of a dam within the spillway at Big Tujunga Dam to increase the maximum storage capacity of the reservoir by approximately 705 acre-feet.
19	Big Tujunga Reservoir Sediment Removal	Los Angeles County Flood Control District	The 2009 Station Fire was the largest fire in Angeles National Forest recorded history and burned over 160,000 acres before containment on October 16, 2009. Approximately 87% of the watershed tributary to Big Tujunga Reservoir was affected. On average, a watershed will take five years or more to recover from a forest fire burn. During this time, increased amounts of debris production are anticipated from the denuded ground surface. Based on the 2010-11 storm season surveys, the total amount of sediment in the Big Tujunga Reservoir is approximately 2 million cubic yards. The County of Los Angeles Department of Public Works on behalf of the Los Angeles County Flood Control District proposes a sediment removal project to permanently remove up to 4.4 mcy of sediment from Big Tujunga Reservoir. Sediment will be excavated and transported using low emission trucks or conveyor belt to Maple Canyon Sediment Placement Site adjacent to Big Tujunga Dam. The project will be completed over four years starting in the sum
20	Boulevard Pit Stormwater Capture Project	LADWP	Acquire and develop Boulevard Pit into a multi-use retention and recharge facility to enhance stormwater conservation.
21	Branford Spreading Basin Cleanout and Pump	Los Angeles County Flood Control District	Branford Spreading Ground has very low percolation rates compared to the Tujunga Spreading Ground directly across the Tujunga Wash Channel. This project will install a pump from Branford Spreading Ground to direct water into the Tujunga Spreading Ground leading to more groundwater recharge. In addition, the project will clean out the clogging layer at the bottom of basin, which will also improve percolation rates.

22	Broadway Neighborhood Stormwater Greenway Project	City of Los Angeles Bureau of Sanitation	In partnership with Water Replenishment District of Southern California and it's "Regional and Distributed Stormwater Capture Feasibiltiy Study," the proposed project will design and implement stormwater Best Management Practices (BMPs) in the City of Los Angeles with the primary goals of TMDL compliance and stormwater infiltration. Three levels of BMPs will be developed; local parcel based Low Impact Development (LID) for 8 acres (60 residential parcels), neighborhood scale LID for 12 acres (3 residential streets and 2 blocks of commercial streets), and a sub-regional scale facility for 30 acres of mixed land uses. The local and neighborhood BMPs will capture and infiltrate all dry-weather flow and up to the ¾ inch storm. The sub regional BMP will capture up to the 2 inch storm for 30 acres. The sub regional BMP will also receive dry-weather flows from 228 acres of mixed land uses. Designs will be standardized to remote widespread implementation.
23	Bull Creek Stormwater Capture	Los Angeles County Flood Control District	Historical records show that an annual average of 625 acre-feet of water passes though Bull Creek. All flows from Bull Creek are lost to the ocean via the Los Angeles River. This project proposes conserving the lost water by diverting flows from the new LADWP facility using a rubber dam and conveying flows through a pipeline to Pacoima Spreading Grounds where it would be captured and recharge the local aquifier.
24	Bull CreekLos Angeles Reservoir Water Quality Improvement Project	LADWP	Plan, design, and construct stormwater conveyance facilities for compliance with the Enhanced Surface Water Treatment Rule. Facilities will be designed according to standards adopted by Department of Water Resources, Division of Safety of Dams. Improvements include widening a portion of the Bull Creek Extension Channel, realigning a section downstream of the widening, construction of a new diversion structure and overflow structure, and improvements to inlet structures. The Los Angeles Reservoir spillway will be removed from service. Proposed design facilitates a future stormwater capture program.
25	Burbank Partnership Water Recycling Project	LADWP	The Burbank Partnership Water Recycling Project involves the planning, design, and construction of approximately 27,000 feet of recycled water pipelines in the North Hollywood area. The three individual segments that comprise the project are the Chandler Boulevard Bike Path segment, the Whitnall Dog Park segment, and the North Hollywood Park segment. These segments will connect to Burbank's recycled water distribution system at three separate connection points and will be served by recycled water treated at the Burbank Water Reclamation Plant. This project is expected to offset up to 285 AFY of potable water with recycled water.

26	Burbank Water and Power Recycled Water System Expansion, Phase 3	City of Burbank Water and Power	The third phase of the City of Burbank's recent recycled water system expansion. As a result of previous phases, over 20 miles of recycled water pipelines have been installed resulting in the distribution of over 2,300 AF of recycled water annually; amounting to 13% of the City's water demand by the end of 2014. The City will continue expanding its recycled water distribution to offset potable water use in this phase by constructing two new recycled water pipelines known as, the LA Equestrian Center (LAEC) and the Naomi pipelines. The LAEC is located on the borders of the cities of Burbank and Los Angeles consisting of landscape areas, stables, offices and corrals; the latter requiring dust control with water trucks. The Naomi pipeline would primarily provide recycled water to a very large commercial data center and smaller customers. Completion of these pipelines will increase recycled water distribution by an estimated 61 AFY, resulting in a direct and immediate potable water savings of 61 AF annually.
27	C Marvin Brewer Desalter Brackish Groundwater Facility Expansion	West Basin Municipal Water District	The Desalter currently has the capacity to extract up to 2,000 acre-feet annually of brackish water. In 2003 the old wells at the site were decommissioned and construction began in 2005 for the first replacement well. The facility became operational in 2006 at a reduced capacity using the new well and the original RO unit. The facility has not been operating to its full capacity since it came online again in 2007 because of water quality issues. Funding is also needed to correct the water quality problems in order to get the facility to its full operating capacity. The proposed 500 AFY capacity expansion will allow the facility to become operational at its full capacity of 2,000 acre-feet per year. The site is already owned by California Water Service Co. and leased by West Basin and is developed as a desalting facility. The expansion will include the installation of a new production well, and the addition of an acid pretreatment unit and a reverse osmosis treatment unit on the existing site.
28	CITYWIDE STORM DRAIN CATCH BASIN CURB SCREENS	CITY of CALABASAS	Installation of storm drain catch basin curb screens at all applicable locations citywide. These screens are the stainless variety approved curb by Los Angeles County. The purpose of the curb screens is to stop trash from entering the catch basins which eventually discharge into both the Los Angeles River and Malibu Creek watersheds. By implementing this project, City of Calabasas will be in compliance with the Trash TMDL both for LA River and Malibu Creek watersheds. Based on studies done, reduction in trash and debris loadings will also reduce Bacterial and sediment loading in the watershed. By implementing the project, disadvantaged communities downstream of Calabasas in Los Angeles River will benefit from cleaner water. The scope work consists of measuring all catch basin openings, drafting RFP with detailed specifications, soliciting proposals from the list of Los Angeles County's approved venders, negotiating contract, implementation/construction, monitoring and reporting.

29	Caballero Creek & Los Angeles River Confluence Park	Mountains Recreation and Conservation Authority	The project will convert a 1.55 acre vacant parcel at the confluence of the Los Angeles River and Caballero Creek into a publicly-accessible natural park with habitat restoration, paths, site furnishings, water quality improvements, waterfront-access, and educational amentities. The design utilizes an innovative mixes low-tech mechanical and biological methods to filter and infiltrate storm waters increases regional water quality. The project creates a multi-benefit park that provides ecosystem services as well as cultural services, like recreation and eco-tourism. The project concept was developed in partnership with the City and County of Los Angeles who have committed to retain ownership, maintenance and operation responsibilities while allowing the Mountains Recreation and Conservation Authority (MRCA) to oversee design and construction. Nearby Reseda High School will monitor the project and use it for hands-on learning and community service opportunities.
30	Camino San Rafael Recycled Water Project	Glendale Water & Power	This project will consist of design and construction of approximately 8300 feet & 6000 feet of new 4"and 8" PVC recycled water pipeline, respectively. The project also consists of installing a two booster stations. This project will extend Glendale's recycled water distribution system to provide recycled water for common area irrigation to the Camino San Rafael Homes. This project will offset up to 90 AFY of potable water with recycled water. This will reduce the City's demand on potable water.
31	Carson Regional Water Recycling Project	West Basin Municipal Water District	The Carson Regional Water Recycling Expansion Project includes the expansion of the existing recycled water treatment facility and the construction of several laterals. This is a new demand on the system and will require expansion of treatment process capacity and conveyance to include; lateral pipelines, pump stations, treatment units, storage tanks, and waste management facilities. The BP Refinery requires single-pass reverse osmosis treatment units. BP Refinery is estimating a need of 2,100 acre-feet per year (AFY). The project will be further expanded to serve customers within the City of Los Angeles' jurisdiction for the refineries in the port area. The City will need recycled water to satisfy a use of 9,300 AFY. The City is in the preliminary design stage.

32	Chase Street Stormwater Greenway	City of Los Angeles Bureau of Sanitation, Watershed Protection Division	The Project will provide a street-end interpretive area on Bull Creek at Chase Street, and install a Stormwater Greenway along Chase Street from the eastern street end on the north side right-of-way to Hayvenhurst, and on the north and south right-of-way to Gothic. Vegetated planters in the parkways will capture and infiltrate street runoff, and will provide storm water filtration, and tree shading. The Bull Creek street-end will feature a native landscape as habitat and a recreational rest stop along the channel, and will provide an interpretive site for wildlife selected and supported by the specific native planting used in the project. A channel diversion from Bull Creek, with a pre-filter and lift station, will transfer runoff through a pipeline to a local Sod Farm where it will be used to irrigate up to 30-commercial acres. The project will integrate water conservation goals (LADWP), Storm water objectives (BOS), Economic enhancements to city property (LAWA), & public health and recreation benefits.
33	Chemical Study - Rio Hondo	Los Angeles County Flood Control District	This project will install a chemical treatment system at the Rio Hondo Coastal Spreading Grounds to remove sediment fines from the water and improve the percolation rates. A Percolation Optimization Investigation (POI) report was done by Montgomery Watson Harza (MWH) in 2003 to evaluate the County's spreading grounds and the impact of suspended solids on percolation rates. The report made a number of recommendations and the recommendations will be implemented at the Rio Hondo flood control facility. The project will install a coagulant chemical feeder and mixer at the grounds intake. This will allow the silt in the stormwater to coagulate and settle prior the cleaner water to flowing into spreading grounds. When this occurs, the spreading grounds will be able to percolate more water, thus conserving and recharging more groundwater.
34	Chevy Oaks Recycled Water Project	Glendale Water & Power	This project will consist of design and construction of approximately 920 feet, 1900 feet & 2100 feet of new 4", 8" and 12" PVC recycled water pipeline, respectively. The project also consists of installing a small booster station. This project will extend Glendale's recycled water distribution system to provide recycled water for irrigation to the Chevy Oaks Homes. This project will offset up to 30 AFY of potable water with recycled water. This will reduce the City's demand on potable water.
35	City of Carson Rain Barrel Give Away Phase II	City of Carson, Development Services Department, Engineering Services Division	At completion of a prior grant, a modest amount of money remained unused. With the acquiesence of the granting agency, the City of Carson purchased 16 rain barrels and set up a website lottery system in order to award them to residents. The response was overwhelming and with no advertising over 100 contestents were disappointed to not receive a rain barrel. This proposal would lead to the purchase of an additional 1,000 rainbarrels (depending on cost and grant amount) to restock the lottery reserves. Advertising and management of the program would be provided as part of the City of Carson grant match. More information on Fiskar Rain Barrels is available at http://www2.fiskars.com/Products/Yard-and-Garden/Rain-Barrel-Systems

36	City of Monrovia Fire Department - Training Center Water Recycling Project	Upper San Gabriel Valley Municipal Water District	Upper District in cooperation with the City and Fire Department of Monrovia are submitting this project incorporating both dry and wet weather runoff capture, treatment and storage for the new Regional Training Center. Once collected, the fire training water and the 85th percentile of a 24 hour storm event (as required by the City's MS4 permit) will be treated before being discharged into storage holding tanks which will store the treated water for future reuse by the training facility. The objective is to offset the use of potable water at the facility, eliminate storm water discharge and capture wet-weather storm water runoff. Finally, if the wet-weather event is larger than the 85th percentile, then provisions are being considered to treat as much of the additional wet-weather storm water runoff via a natural infiltration gallery (bioswale) before being discharged into the City's storm water system.
37	Cogswell Dam Inlet/Outlet Works Rehabilitation Project	Los Angeles County Flood Control District	This project will consist of refurbishment and upgrades to the outlet works, tunnels, and repair of various facility components at Cogswell Dam. The project will increase operational effectiveness for flood control and water conservation. The project will involve: a complete overhaul of the dam's entire inlet/outlet works; upgrade on the electrical control equipment; repair of downstream facilities; structural repairs on the upstream facing slab; security upgrades; and other various repairs essential for maintaining and operating a flood control facility. The overall project intent is to improve Cogswell Dam for maintaining dam safety, increased efficiency and reliability of flood control operations, and enhancement of water conservation efforts.
38	Cold Creek Diamond Acquisition	Mountains Restoration Trust	The project will acquire 4.87 acres (APN 4455-021-040) of natural undisturbed open space within the existing 1348-acre Cold Creek Preserve in the Santa Monica Mountains National Recreation Area. The acquisition is part of the state-funded Cold Creek Restoration Plan designed to acquire 539.06 acres to protect the wild and scenic, perennial Cold Creek, the habitat linkage between Topanga State Park and Malibu Creek State Park, the values of Los Angeles County's Significant Ecological Area #9, and a future venue for environmental education, research, and recreation. The area includes significant oak, sycamore, and willow communities, supports a range of wildlife including mountain lion, gray fox and raptors. The pure waters once supported the federally-listed endangered southern steelhead trout.
39	Conservation Budget Based Tiered Rate Structure	West Basin Municipal Water District	This project helps our customer agencies to develop a water conservation, budget-based rate structure for their customers. The project is beneficial to West Basin's cities and retail water agencies because it provides a pricing structure that will incentivizes its customers to conserve water. This pricing method has been used in other parts of the State and has been successsful at reducing water usage and reqarding those who do so with lower rates on their water bill.

40	Conversion of 237th Street Sump Tributary to Machado Lakes for Nutrient and Toxics TMDL BMPs	City of Torrance	This project would convert the 237th St. Sump (4.5 acre-feet) into a retention/infiltration basin BMP for Toxics and Nutrient TMDL compliance and provide open spaces for wildlife habitat. This project would install diversion structures that would divert the first 4.5 acre-feet of stormwater from a 71 acre tributary area away from the system tributary to Machado Lake (Wilmington Drain) to be retained and infiltrated in this basin. Trash screens would be installed at the catch basin in the watershed by a seperate project. During the dry season the basin would remain an open space for wild life and retain urban run-off and nutrients form 71 acres. By diverting stormwater back into this basin, the City and County storm drain systems would have more capacity during rain events. This project would also increase groundwater recharge.
41	Creek Crossings Repairs	Los Angeles County Waterworks District No. 29	This project consists of repairing corroded and deteriorated sections of aboveground pipeline and developing a Corrosion Monitoring, Control, and Maintenance Program. The Waterworks District 29 transmission water pipeline runs along the Pacific Coast Highway in Malibu. The proposed pipeline repairs are located at eight creek crossings attached to bridge structures. The project will significantly prevent future leaks and breaks in the main transmission pipeline which is the primary source of water supply for Malibu and Topanga. The development of a maintenance program is essential to maintaining water supply reliability for the region.
42	Deauville Distributed Water Reuse Project	City of Santa Monica	The project would harvest stormwater and brackish groundwater for high level treatment and non-potable use around the City, replacing the use of imported potable water. The City would install a 1.3 million gallon storage tank next to the Santa Monica Pier, Deauville lot, to harvest stormwater from the Pier sub-watershed during rain events and brackish groundwater during dry periods. The project would have an optional overflow to an infiltration gallery. A saline extraction well would be installed in sand next to the storage tank. The project would install pre-treatment catch basin inserts in the drainage area or a centralized hydrodynamic separator-screening device to remove trash and debris from stormwater. Modular nanofiltration (NF) and a saltwater reverse osmosis (RO) treatment systems at the site would treat these stored local water resources to high quality for various uses around the City in the existing recycled water system. All concentrated brine by-product would be sent to the sanitary sewer.
43	Decker Canyon Recycled Water System Extension	Las Virgenes Municipal Water District	The Decker Canyon recycled water pump station, pipeline, and tank would furnish recycled water primarily to Malibu Country Club Golf Course and Tract 47962-Sycamore Canyon Estates near the pump station location and other nearby ranchettes. The project would comprise a high-lift pump station, ~23,000 linear feet of pipeline along Westlake Blvd and Decker Canyon Rd, and a 60-foot diameter concrete tank near the corner of Decker Canyon Rd and Mulholland Hwy. Approximately 229 AF of recycled water per year would be used by this project.

44	Del Rey Lagoon Water Quality Improvement Project	City of Los Angeles Bureau of Sanitation Watershed Protection Division	The Del Rey Lagoon Water Quality Improvement Project proposes to improve water quality by reducing the source and amount of fecal indicator bacteria in the Del Rey Lagoon and surrounding waterbodies such as the Santa Monica Bay and Dockweiler Beach. Project components include stormdrain systems, vegetated swales, irrigation system retrofit, and drainage modifications. Education and outreach to the public will also be included in the project scope. The vegetated swales are designed to capture, retain, and treat runoff from the adjacent residential, transportation, and landscaped area during dry weather and partially during wet weather. Existing irrigation system will be retrofitted with a smart irrigation system to reduce excessive irrigation runoff, thereby conserving water and reducing flow. Catch basins and storm drains will be installed to capture and divert excess wet-weather flow into the sewer system. Project also includes a nature viewing deck and educational displays that explain local flora-fauna.
45	Demonstration Gardens at Los Angeles County Fire Department Stations	West Basin Municipal Water District	This project involves the installation of drought-tolerant demonstration gardens at a minimum of five fire stations throughout the West Basin service area. These gardens will replace turf and/or concrete areas that are directly in front of the fire stations in order to provide a maximum visibility to the public. The gardens will be utilizing drought-tolerant and/or native plants that will be designed by professional landscape designers that specialize in climate-appropriate plans and trees. The main goal is to provide water conservation and runoff reduction measures and secondarily to educate the public about the measures so that they can create these spaces at their own homes. West Basin strives to reduce demands by implementing conservation and education programs throughout the communities it serves. This project aims to continue implementing outdoor water conservation/education programs to influence the public to create these spaces in their own homes.
46	Devil's Gate Dam and Reservoir Water Conservation	Los Angeles County Flood Control District	This project proposes to conserve stormwater by holding a reservoir pool behind Devil's Gate Dam and diverting the water to Eaton Wash Dam and Eaton Wash Spreading Grounds for poststorm groundwater recharge. A pump will be installed in the Devil's Gate Dam reservoir and water will be pumped out and conveyed through over 26,000 feet of pipeline to Eaton Wash Dam where it can be held for recharge at downstream spreading ground facilities.

47	Devil's Gate Reservoir Sediment Removal and Management Project	Los Angeles County Flood Control District	The 2009 Station Fire was the largest fire in Angeles National Forest recorded history and burned over 160,000 acres in the San Gabriel Mountains. Approximately 68% of the watershed tributary to Devil's Gate Reservoir was burned and as a result of the storms that occurred in the two wet seasons after the fire, sediment levels in the reservoir increased by more than one million cubic yards. The County of Los Angeles Department of Public Works on behalf of the Los Angeles County Flood Control District is planning a sediment removal project of up to 4 million cubic yards. A sediment removal project from behind Devil's Gate Dam is vital to the health of the Arroyo Seco flood control system. The goal of this project is to restore flood control capacity and establish a reservoir configuration more suitable for routine maintenance activities. The project will last approximately 5 years with construction starting in 2014.
48	Dominguez Channel Greenway Phase III	Los Angeles County Flood Control District	The project will consist of development of a native landscaped greenway and bikeway/pedestrian trail along the north side of the Dominguez Channel, between Vermont Av and Normandie Av. The project will include the following: access/maintenance road improvements for the new/improved bikeway; AC repair and replacement, slurry seal, American Disability Act (ADA) access ramps and bikeway/pedestrian signage and striping. Landscaping improvements include landscaping using native and drought-tolerant plants, irrigation, as-needed fencing repair/replacement. Educational/interpretive signage will also be included along the bikeway/pedestrian trail. A study is also recommended to consider additional pedestrian crosswalks with street lamp lighting for added safety. The project is currently on hold until the LACFCD completes a study to address deficiencies in its levees.
49	Dominguez Channel Trash Reduction Via ARS Installation in the City of Carson, CA	City of Carson, Development Services Department, Engineering Services Division	This project would install Automatic Retracting Screens (ARS) in the 1800 Storm Drain Catch Basins in the City of Carson. The proponents favor ARS to collect trash at street level where the trash can be quickly and cost effectively collected weekly by the existing City Street Sweeping Contractor and eliminates the need for other more costly and difficult to maintain downstream trash control systems. This project anticipates the continuing development of local and state waterway trash control efforts and alleviates the need to develop these expensive federal, state and local requlatory mandates. In comparison to other "downstream" trash control systems, the maintenance status of ARS is easily assessed and visible to the public, which is then able to report those locations where maintenance is warranted. Since ARS systems are located in the street sweeper path, maintenance (trash collection) occurs weekly, the trash stays dry and is less subject to the degradation that generates other pollutants (bacteria).

50	Dominguez Gap Spreading Grounds West Basin Percolation Enhancement	Los Angeles County Flood Control District	The proposed project will increase the percolation within the spreading grounds facility in order to increase groundwater recharge. The preliminary scope includes removing between 5 to 10-feet of clay sediment or installing vertical trenches/drains through the poorly draining strata in the facility's west basin. Preliminary studies have been conducted including boring samples which will be used to further develop conceptual plans and estimate project benefits.
51	Duck Farm River Parkway Phase 1 - Water Enhancement Project	Watershed Conservation Authority	The Duck Farm River Park, once a natural floodplain, has been disconnected from the natural processes of the river for decades as a result of urbanization & flood management. The Project reintroduces natural systems through a riparian/pocket wetland/seasonal streambed that improves both habitat and collect, filter & infiltrate stormwater flows onsite, as well as stormwater from the adjacent freeway in collaboration w/Caltrans. The project will transition irrigation source (annually forecasted to require 19M gallons) from imported, highly processed potable water to either local groundwater or recycled water as its source of supply. The public will benefit by being reconnected to nature, the river, & from educational & interpretive programming possible at the site. This change in supply will reduce greenhouse gases & the parks carbon footprint. Outdoor classroom & interactive educational experiences with children will inspire local youth to learn more about our watershed, water conservation & sustainability
52	Eaton Spreading Grounds Intake Improvements	Los Angeles County Flood Control District	The project will increase the intake and storage capacity of the Eaton Wash Spreading Grounds facility. This will improve the facility's ability to recharge storm water into the groundwater basin, thus greatly increasing the sustainable local groundwater supply that is vital for the region. Los Angeles County Flood Control District will replace the vehicle access slab with a metal grate over the spreading grounds drop intake channel and replace the current diversion flashboards with an inflatable gate within the intake channel. These improvements in Eaton Wash Channel will better direct flows into Eaton Wash Spreading Grounds, thereby increasing its intake capacity. Basin 1 will be enlarged to increase the facility's storage capacity. The project will include improvements to the property along Sierra Madre Boulevard that will significantly improve the sustainability, aesthetics, and safety of the public walkway and street view. Two driveway entrances will be improved by increasing the gate set-back fu
53	Eaton Wash Dam Inlet/Outlet Works Rehabilitation Project	Los Angeles County Flood Control District	The dam outlet works rehabilitation project involves the removal of the existing outlet tower and gate house. Once these major components are removed, construction of a gate valve, debris racks, hydraulic power system with a block house, control systems, modification of the outlet works structure, and rehabilitation of the gate valves will commence. It will provide necessary erosion protection measures and improve water quality during low-flow releases from the dam.

54	Elysian Reservoir Water Quality Improvement Project	LADWP	LADWP is planning to cover the existing Elysian Reservoir in order to meet US EPA water quality regulations. In April 2012, the Board of Water & Power Commissioners certified the Environmental Impact Report and approved the floating cover alternative. The project will install a flexible membrane floating cover over the existing water surface. Also included are supporting infrastructure (piping, valves, liner) and site improvements (roadway paving, fencing). The reservoir will operate in the same manner, providing potable storage for the distribution system. Construction is anticipated to being by 2015. In conjuntion with the project, a Community Parks Fund was established by the Board of Commissioners. The fund is to be used for unspecified public purposes related to community parks. Best efforts will be made to locate enhancements primarily in the Elysian Park area, working together with the community and other City of Los Angeles agencies.
55	Encinal Emergency Connection	Los Angeles County Waterworks District No. 29	The project consists of adding a new emergency water source to supply Waterworks District No. 29 through a new interconnection along Encinal Canyon Road at the District boundary with Las Virgenes Municipal Water District (LVMWD). This interconnection would bring water from Metropolitan Water District of Southern California through LVMWD to provide additional supply to the District during emergencies.
56	Foothill Municipal Water District Recycled Water Project	Foothill Municipal Water District	Three hydrologic areas were studied for the development of satellite recycled water facilities. Foothill Municipal Water District (FMWD) is pursuing the construction of one facility near Berkshire Place in La Canada at this time. This project will treat wastewater using a membrane bioreactor and recharge the product into the groundwater basin using infiltration galleries underneath athletic fields for multi-beneficial uses. Cal Poly Pomona has partnered with FMWD and is developing a model that will also capture stormwater for recharge using the same infiltration galleries. A conservation and education component has also been added. Landscaping will be done to showcase drought tolerant plants at both the MBR site and school site. Tours will be available so that students may learn about stormwater capture, groundwater, recycled water, conservation and the watershed since the Arroyo Seco and Hahamongna Park are across the street. This 0.250 MGD plant will save enough energy annually for 80 homes in So. Cal.
57	Freeway Runoff Infiltration Demonstration Project	City of Santa Monica	Divert runoff from a section of the Santa Monica Freeway within the City of Santa Monica, treat and infiltrate within an area near the freeway, either a landscaped area or parking lot. The infiltration zones will be augered, if necessary to by-pass poor permeable soils. There will be pre-treatment before infiltration to remove trash, oil/grease, sediments. It will be a passive system, i.e. gravity-fed and low into the system. The treatment-infiltration areas will be areas either already with a storm drain in the area, or the creation of new ones to harvest the runoff. The goal will be to keep runoff out of the existing storm drains and out of the storm drain system.

58	Glen Oaks Storm Water Capture Project	Los Angeles Beautification Team	The Prop O funded phase I, the installation of six bio-swales and 4 dry wells. This watershed in an average rainfall year brings 300 acre feet of water to Glen Oaks Blvd. Phase I was completed in January 2014 and is currently capturing an estimated 30 acre feet per year leaving approximately 270 acre feet available for storm water capture. Phase II will consist of an additional eight dry wells for an estimated $625,000, plus the cost of City Services (Design fees, permits and over site), that will capture an additional 40 to 45 acre feet annually.
59	Glendale Narrows Habitat Enhancement Project	Council for Watershed Health	The Glendale Narrows Riverwalk will provide approximately one mile of multi-use recreation along the Los Angeles River. There are several invasive plant species that are prevalent adjacent to the Riverwalk in the Glendale Narrows area of the Los Angeles River. These invasive plant infestations jeopardize the improvements to water quality and degrade habitat for native aquatic, avian, reptile, amphibian, and invertebrate species. In collaboration with the City of Glendale Community Services & Parks Department, the Council for Watershed Health (Council) proposes to develop and manage a 3-4 year restoration project to map, control, and monitor invasive arundo and invasive palm trees in the Riverwalk project area in the Glendale Narrows sections of the Los Angeles River. A native plant propagation and replanting effort is also proposed to reestablish riparian plants.
60	Goldsworthy Groundwater Desalter Expansion	City of Torrance	The Goldsworthy Desalter (Desalter) treats water from the saline plume in the West Coast Groundwater Basin for drinking water. The brackish water is treated to meet or exceed municipal drinking water standards through the use of a reverse osmosis system. The existing Desalter produces approximately 2,000 acre-feet of potable drinking water per year. When the Desalter was originally constructed in 2002, it was designed for expansion to over 5000 acre-feet per year of drinking water. In 2012 the Water Replenishment District of Southern California had a Feasibility Study for the Expansion of Desalter prepared for and approved by the U. S. Bureau of Reclamation. The expansion would involve the installation of additional reverse osmosis treatment units, construction of two additional source water wells, transmission mains and related appurtenance. The project also diverts waste water away from Santa Monica Bay where discharges cause TMDL violations for bacteria.

61	Groundwater Reliability Improvement Project (GRIP)	Water Replenishment District of Southern California	The overarching goal of the GRIP Recycled Water Project is to offset the current use of imported water by providing up to 21,000 acre-feet per year (AFY) of recycled water as a reliable supply source for groundwater basin replenishment via the Montebello Forebay within a reasonable timeframe. The source for the recycled water will be the Los Angeles County Sanitation Districts' San Jose Creek Water Reclamation Plant (SJCWRP). Tertiary treated recycled water, advanced treated recycled water (microfiltration, reverse osmosis and advanced oxidation), or a combination of the two will be conveyed from the SJCWRP via an existing pipeline or possibly a new pipeline for recharge in the Central Groundwater Basin through the Montebello Forebay Spreading Grounds or potentially a new injection well field.
62	Groundwater System Improvement Study	LADWP	The purpose of the Groundwater System Imrovement Study (GSIS) is to perform an independent study to identify, characterize, and evaluate emerging water quality constituents for the San Fernando Basin (SFB). This will include a comprehensive analysis that will provide recommendations in developing short and long-term projects, including the design and construction of groundwater treatment facilities, to maximize the use of the groundwater supply in the SFB. As a part of the GSIS, the LADWP will be drilling approxinmately 26 new groundwater monitoring wells, and perform short-term monitoring of existing and new wells, in order to obtain supplemental water quality data necessary for planning the groundwater treatment afcilities in the SFB.
63	Groundwater Treatment Facilities	LADWP	Design and construction of groundwater treatment facilities in North Hollywwod, Rinaldi-Toluca and Tujunga Wellfields in the San Fernando Basin (SFB), with a treatment capacity of 122,900 acre-feet per year.
64	Hansen Dam Golf Course Water Recycling Project	LADWP	Construct 4,500 feet of 20" pipeline, pumping station and pipe support bridge to deliver recycled water from the Tillman Plant to the Hansen Dam Golf Course and other potential future users. Water will be pumped from the Hansen Tank.
65	Hansen Dam Water Conservation Project	Los Angeles County Flood Control District	Hansen Dam, situated adjacent to the Tujunga Wash Channel in the San Fernando Valley, is a vital part of flood control efforts in the Los Angeles River drainage basin. The primary purpose of Hansen Dam is flood control; however the opportunity exists to increase water conservation and water supply through increased water recharge upstream of the dam. The current operation of the dam allows for an average annual water conservation of 17,100 acre feet per year. The Water Conservation Project, which involves utilizing the existing Debris and Flood Control Pools for water conservation purposes by raising their respective maximum elevations to allow for additional water supply storage, would increase the dam's water conservation ability. This extra supply storage would allow for dam releases to downstream spreading grounds and other facilities fo
66	Hansen Dam Water Conservation and Supply	The River Project	Change management regime of Hansen Dam to focus on water conservation by maintaining a water conservation pool within the reservoir during and subsequent to flood season.

67	Headworks East Reservoir	LADWP	onstruction of a 110 MG buried reservoir along with a 4 MW hydroplant at the former Headworks Spreading Grounds to replace the storage capacity lost when Ivanhoe Reservoir is removed from service. Needed to bring the Water System into comliance with state and federal drinking water regulations by the regulatory deadline of November 2014
68	Headworks Ecosystem Restoration	LADWP	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
69	Herondo Parking Lot and Beach Infiltration	City of Redondo Beach	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
70	Hoover, Toll, & Keppel School Recycled Water Project	Glendale Water & Power	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
71	Humboldt Stormwater Greenway	City of Los Angeles, Bureau of Sanitation/Watershed Protection Division	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
72	Improvements to Entradero Storm Drain Channel for Storm Water Infiltration and Habitat Restoration	City of Torrance, SMBBB TMDL Jurisdictional Groups 5 & 6	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
73	Improvements to San Gabriel River Diversion and San Gabriel River Water Committee Canal and Appurtenances	Azusa Light and Water	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
74	Indirect Reuse Replenishment Project	Upper San Gabriel Valley Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
75	Johnny Carson Park Stream Restoration and Park Revitalization	City of Burbank	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
76	Jordan Downs Daylighting Study	Multi-jurisdictional Agencies-LA City Housing and Public Works	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
77	LA River Sixth Street Bridge Greenway	City of Los Angeles, Bureau of Engineering	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
78	LVMWD Woodland Hills Golf Course Recycled Water Pipeline Extension	Las Virgenes Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
79	La Puente Valley County Water District Recycled Water Project	Upper San Gabriel Valley Municipal Water District & La Puente Valley County Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
80	Landscape Irrigation Efficiency Program (LIEP)	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
81	Large Landscape Irrigation Survey and Retrofit Project	Upper San Gabriel Valley Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
82	Las Virgenes Creek Bank Stabilization, Stream Restoration, Fish Migration Enhancement and Trail Connection	City of Calabasas	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
83	Live Oak Dam Inlet/Outlet Rehabilitation	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description

84	Live Oak Spreading Grounds Improvement Project	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
85	Lopez Spreading Grounds Improvement	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
86	Los Angeles River Center and Gardens Green Conference Center	Mountains Recreation and Conservation Authority	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
87	Los Angeles River Natural Park	City of Los Angeles Bureau of Sanitation/Watershed Protection Division	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
88	Los Angeles River Revitalization Master Plan 32 Mile Channel and Easement Greening	City of Los Angeles, Bureau of Engineering	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
89	Los Angeles State Historic Park Water Recycling Project	LADWP	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
90	Los Angeles-Burbank Groundwater System Interconnection	LADWP / Burbank Water and Power	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
91	Los Angeles-Glendale Groundwater System Interconnection	LADWP / Glendale Water and Power	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
92	Lower Los Angeles River Area Linear Water Storage Feasibility Study	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
93	Malibu Civic Center Area Recyled Water Delivery Project	City of Malibu	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
94	Malibu Civic Center Linear Park Phase 3	City of Malibu	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
95	Malibu Drought Preparedness Project: Graywater Reuse and Rainwater Harvesting	City of Malibu	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
96	Malibu Equestrian Center Runoff BMPs	City of Malibu	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
97	Malibu Rainwater Harvesting	City of Malibu	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
98	Malibu Road/Malibu Colony Stormwater Management	City of Malibu	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
99	Manhattan Strand 28th Street Subsurface Infiltration Trench	City of Manhattan Beach	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
100	Manhattan Wells Improvement	LADWP / Water Replenishment District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
101	Marsh Park, Phase II	Mountains Recreation and Conservation Authority	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
102	Medea Creek Restoration at Chumash Park	City of Agoura Hills	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
103	Miller Pit Spreading Basins	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description

104	MillerCoors Recycled Water Project	Upper San Gabriel Valley Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
105	Milton Street Park and Green Street project - Ballona Creek	Mountains Recreation and Conservation Authority	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
106	Mission Hills Green Belt	The River Project	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
107	Mission Wells Improvement	LADWP	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
108	North Hollywood Groundwater and Surface Water Benefits Study	Council for Watershed Health	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
109	North Hollywood Street Enhancement	City of Los Angeles	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
110	North Hollywood Transmission Corridor Easement Stormwater Capture Study	Council for Watershed Health	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
111	North Santa Monica Bay Firecamp 13 LID Retrofit	Los Angeles County Deprtment of Public Works	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
112	North Santa Monica Bay Probation Camp Miller LID Retrofit	Los Angeles County Department of Public Works	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
113	Northeast Gardena Recycled Water Line	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
114	Northeast Gardena Storm Water Quality Park, Recycled Water Line, and Landscape Makeover	Council for Watershed Health	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
115	Northeast Gardena Water and Landscape Makeover, Community Involvement Module	Council for Watershed Health	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
116	Oak Park Green Streets Urban Retrofit	County of Ventura	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
117	Oak Park Medea Creek Restoration	Mountains Restoration Trust	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
118	Ocean Friendly Garden (OFG) Program	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
119	Olive Pit Water Conservation Park	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
120	Oxford Retention Basin Multi-Use Enhancement Project	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
121	Ozone Park Runoff Treatment and ReUse Project	City of Santa Monica	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
122	Pacoima Dam Inlet/Outlet Works Rehabilitation Project	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
123	Pacoima Neighborhood Retrofit	The River Project	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description

124	Pacoima Reservoir Sediment Removal	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
125	Pacoima Spreading Grounds Improvements	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
126	Palos Verdes Peninsula Satellite Facilities Study	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
127	Palos Verdes Recycled Water Lateral	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
128	Pasadena Recycled Water Project	Pasadena Water and Power	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
129	Peck Water Conservation Improvement Project	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
130	Puddingstone Diversion Dam Inlet/Outlet Works Rehabilitation	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
131	Raw Wastewater Diversion to the City of Los Angeles	Las Virgenes Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
132	Recycled Water On-Site Retrofit Projects	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
133	Recycled Water Storage and Distribution System Expansion	Las Virgenes Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
134	Recycled Water Supply for Palos Verdes Golf Course	City of Palos Verdes Estates	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
135	Recycled Water Turnouts	Water Replenishment District of Southern California	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
136	Regional Water Supply Reliability Program Phase 1b	Puente Basin Water Agency	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
137	Residential Indoor Plumbing Retrofit Kits	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
138	Residential SMART Timer Retrofit "Plus" Program	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
139	Rio Hondo Coastal Basin Spreading Grounds - Sediment Removal from Basins	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
140	Rockhaven Well	Crescenta Valley Water District and Glendale Water and Power	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
141	SMURRF Distributed Water Reuse Project	City of Santa Monica	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
142	San Gabriel Coastal Basin Spreading Grounds Improvement Project	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
143	San Gabriel Dam Penstock Coatings and Valve Repair	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description

144	San Gabriel Valley Water Recycling Project (Phase I - Rose Hills Expansion)	Upper San Gabriel Valley Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
145	San Gabriel Valley Water Recycling Project - Membrane Bioreactor Treatment Plant	Upper San Gabriel Valley Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
146	San Jose Creek Water Reclamation Plant East Process Optimization Project	County Sanitation Districts of Los Angeles County	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
147	San Rafael Creek Restoration	Arroyo Seco Foundation	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
148	San Ramon Canyon Stormwater Flood Reduction Project	City of Rancho Palos Verdes	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
149	Santa Anita Dam Seismic Rehabilitation	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
150	Santa Fe Dam Water Conservation Pool	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
151	Santa Fe Spillway Basins	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
152	Sawpit Debris Dam Seismic Strengthening Project	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
153	Septic-To-Sewer Drinking Waterwell Protection Project	City of Los Angeles Bureau of Sanitation/Wastewater Engineering Services Division	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
154	Sepulveda Basin Sports Complex Multi-Purpose Open Space Project	City of Los Angeles, Bureau of Engineering	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
155	Sepulveda Basin Sports Complex Riparian Buffer	City of Los Angeles, Bureau of Engineering	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
156	Sheldon Pit	LADWP	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
157	Shoestring Park	Council for Watershed Health	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
158	Silver Lake Reservoir Bypass & Regulator Station	LADWP	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
159	Six Basins and Puente Basin Integrated Water Supply Project	Puente Basin Water Agency	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
160	South Coast Botanic Gardens	Los Angeles County Department of Public Works	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
161	South El Monte Recycled Water Expansion Project Package 1	Upper San Gabriel Valley Municipal Water District & San Gabriel Valley Water Company	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
162	South El Monte Recycled Water Expansion Project	Upper San Gabriel Valley Municipal Water District & San Gabriel Valley Water Company	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description

163	South Los Angeles County Groundwater Pipline Project	Water Replenishment District of Southern California	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
164	South Park Subsurface Infiltration Gallery	City of Hermosa Beach	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
165	Southeast Gardena Recycled Water Line	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
166	Stormwater Diversion to Walnut Avenue Sump	City of Torrance	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
167	Sun Valley Watershed Rory M. Shaw Wetlands Park Project (a.k.a. Strathern Wetlands Park)	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
168	Taylor Yard River Park Parcel G2	City of Los Angeles, Bureau of Engineering	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
169	Terminal Island WRP Advanced Water Purification Facility and Distribution System Expansion Project	LADWP	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
170	Terminal Island WRP Advanced Water Purification Facility and Distribution System Expansion	LADWP	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
171	Thousand Oaks Boulevard and Westlake Elementary Recycled Water System Extension	Las Virgenes Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
172	Topanga Connection Acquisition	Mountains Restoration Trust	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
173	Transfer Station Cover Structure and Site Improvements	City of Inglewood	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
174	Triunfo Community Park and Evanstar Park Recycled Water Extension	Las Virgenes Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
175	Trunk Sewer Rehabilitation Projects	Las Virgenes Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
176	Turf's Up Water Use Efficiency Program	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
177	Valley Generating Station Stormwater Recharge Project	LADWP	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
178	Van Ness and Slauson Infiltration Best Management Project	City of Los Angeles Bureau of Sanitation Watershed Protection Division	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
179	Verdugo Hills Stormwater Project	City of Los Angeles, Bureau of Sanitation/Watershed Protection Division	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
180	Vermont Avenue Storm Water Capture and Green Street Beautification Project	City of Los Angeles, Bureau of Sanitation/Watershed Protection Division	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description

181	Vermont Median Stormwater Park	Council for Watershed Health	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
182	Victoria Street CSUDH Water Reuse Concept Proposal	City of Carson	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
183	WRD Eco Gardener Program	Water Replenishment District of Southern California	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
184	Walnut Creek Spreading Basin Improvements	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
185	Water Budget Based Rate Implementation	Las Virgenes Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
186	Water Star Schools Pilot Program	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
187	Well 15	San Gabriel County Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
188	Well 7	City of Inglewood	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
189	Well No. 2 Rehabilitation	City of Inglewood	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
190	West Coast Basin Barrier Project	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
191	Westlake Filtration Plant Enhancement & Backbone Improvements	Las Virgenes Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
192	Westward Beach Road Bioinfiltration Project	City of Malibu	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
193	Westwood Neighborhood Greenway Project	City of Los Angeles Bureau of Sanitation Watershed Protection Division	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
194	Whiting St. and El Segundo Blvd. Dry Weather Diversion Structure	City of El Segundo	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
195	Whitnall HWY Powerline Easement Stormwater Capture Project	LADWP	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description

October 23, 2014

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RE: Public Comment: Notice of Preparation of a Draft Program Environmental Impact Report for Enhanced Watershed Management Programs

Dear Mr. BeGell:

Thank you for your efforts on the Notice of Preparation (NOP) of the Draft Program Environmental Impact Report for the Enhanced Watershed Management Programs (EWMP). I am confident your work will result in an informative and precise first tier final Program Environmental Report (PEIR) that is adequate, complete, and a good faith effort at full disclosure. The purpose of my comments, per Section 15168(c)(5) of the 2014 California Environmental Quality Act (CEQA) Statute and Guidelines, is to assist in the creation of a PEIR "that deals with the effects of the program as specifically and comprehensively as possible." Additionally, I realize that by doing "a good and detailed analysis of the program, many subsequent activities could be found to be within the scope of the project described in the program EIR, and no further environmental documents would be required."

I recognize and appreciate the herculean task involved for the Flood Control District and it is my sincere attempt to keep my comments relevant to the NOP. As such, I have attempted to draft my comments in a reader-friendly manner that identify the issue and, wherever possible, propose a feasible solution. My comments only address the content of the NOP.

COMMENTS ON THE CONTENT OF THE NOP

1. Introduction

COMMENT No. 1: (Page No. 2) Please elaborate on the approval process. It would be informative if the role between the Los Angeles County Flood Control District (LACFCD) and the Los Angeles Regional Water Quality Control Board (LARWQCB) is further explained. The introduction does a good job explaining the steps involved in the EWMP process, but lacks clarity on the connection between the PEIR and LARWQCB. In particular, the sentence in mind states, "The LARWQCB is responsible for approval of the EWMPs in compliance with the MS4 Permit. Implementation of the EMWPs would occur following approval by the LARWQCB."

If the LARWQCB approves the EWMPs then who adopts the final PEIR? How does this PEIR fit into the responsibilities and mandates of the LARWQCB? All 12 of the EWMPs specify a date when the final EWMPs will be submitted (June 2015) to the LARWQCB, but no mention is made about the PEIR. In addition, the NOI submitted to the LARWQCB by each Watershed Management Group (WMG) span two programs: the EWMPs 'and' Coordinated Integrated Monitoring Programs (CIMP). What is a CIMP? Does this PEIR also analyze the CIMP?

COMMENT No. 2: (Page 2) Project Location – Please elaborate as to whether the policies and plans of the EWMPs are targeting public property, public right-of-ways, land owned by the LACFCD and/or private property.

COMMENT No. 3: (Page 4, Figure 1 – Overview of EWMP Groups) The EWMP groups only identify a total of 47 participating cities (Permittees) throughout los Angeles County. However, there are 37 remaining Permittees throughout Los Angeles County that are not part of the

EWMP groups. Is this PEIR broad enough in scope for Los Angeles County? How will the remaining 37 cities meet compliance goals and strategies under the 2012 MS4 Permit?

COMMENT No. 4: (Page 5) The opening paragraph states that "The primary approach to each of the EWMPs, as identified in the Draft Work Plans, includes identifying community-friendly, cost-effective methods of reducing urban runoff pollution and incorporating distributed and centralized structural and nonstructural watershed control measures for a multi-pollutant, multi-benefit approach." However, a review of all 12 EWMPs indicates that there was no cost/benefit analysis or any modeling completed to substantiate the "cost-effectiveness" of these methods. Please identify any additional documentation supporting this claim.

COMMENT No. 5: (Page No. 5) This comment attempts to clarify the scope of the PEIR by asking, "how much information is enough?" Please clarify the use of the term "project." The final sentence in the first paragraph states, "The EWMPs will also evaluate multi-benefit regional projects that will retain (through infiltration or capture and reuse) the stormwater quality design volume (85th percentile storm for 24 hours) for the runoff from the contributing drainage area." Evaluating, site-level projects at the PEIR level creates a lack of agreement between the inherent programmatic and geographic scope of the PEIR and the site-specific goal of a single-project EIR, as Section 21002.1(d) of the CEQA Statute states, "to consider the effects, both individual and collective, of all activities involved in 'a' project." I reviewed all 12 of the EWMPs and CIMPs and they do not identify projects currently in the works and no analysis is provided. The EWMPs seem to be evaluating plans and policies. Clarification of the term project would be beneficial in order to clearly understand the scope of this PEIR.

Providing additional contrast is, Section 21003 which states, “All persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical, and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment.” In an effort to avoid the possibility of imposing an unfunded mandate on local cities and/or non-profit groups to undertake the second tier of this PEIR, the prudent use of public funds, and to promote a second tier CEQA process that is streamlined, I feel it would be beneficial to incorporate an analysis of current projects in the “pipeline.”

This is critical because a review of the Greater Los Angeles County Integrated Regional Water Management (IRWM) database reveals over 190 water resources projects with regionally-significant benefits in the pipeline (Attachment A). The IRWM is a funding mechanism that encourages regional and local collaboration in the design of sustainable water resources infrastructure. To date, regional agencies, cities, non-profits and community representative groups, have collaborated and submitted project proposals of regional significance. Not all of these projects incorporate BMPs, per say (many do), and many have already been deemed categorically exempt. Additional vetting would need to take place in order to identify projects in-line with a low impact development ideal to collaborate and integrate compliance strategies that are based on a multi-pollutant approach with a focus on green infrastructure that maximize the retention and use of urban runoff as a resource for recharging aquifers and for irrigation and other uses.

If this nexus to analyze the impacts of regional projects is deemed reasonably feasible, further vetting of the projects would be required to understand their CEQA status. The question is who conducts this analysis, the LACFCD or the WMGs? This is important to figure out since Section 15152(b) of the CEQA Statute and Guidelines states that, "Tiering does not excuse the lead agency from adequately analyzing reasonably foreseeable significant environmental effects of the project and does not justify deferring such analysis to a later tier EIR or negative declaration."

COMMENT No. 6: (Page 5) The second paragraph states, "The PEIR will provide a program-level assessment of the overall permit compliance effort, focusing particularly on the structural watershed control measures proposed in each of the 12 EWMP areas." The project list on Attachment A identifies projects aiming to implement watershed control measures throughout Los Angeles County. Many of these projects are categorically exempt, have concluded their own environmental assessment or already constructed, however, the database (L.A. Water Plan) where I retrieved these does not clearly indicate this information. Furthermore, none of the 12 EWMPs under consideration undertook this task to see how the proposed physical changes within their EWMP may or may not comply with the goals and objectives of their respective plans and policies. In an effort to, as Section 15152© describes, "avoid deferring the potential significant impacts to the second tier and possibly preventing the adequate identification of significant effects of the planning approval at hand," it may be worthwhile to include this list of "reasonably foreseeable" regional projects in the PEIR analysis or have the WMGs revise their draft plans to incorporate this analysis.

1.1 Project Location

COMMENT No. 7: Refer to Comment No. 2. In addition, the description of the location could be augmented by elaborating on the baseline environmental context. Also, adding maps identifying the tributaries, rivers, channels, etc. within the 12 watersheds could increase understanding of the local watershed functional characteristics. The maps are contained in most of the individual EWMPs. A reference to the website location of each respective EWMP could suffice.

Additionally, there is no reference to the types of soils that underlie the 12 EWMPS. The EWMPs provide a summary of these soil characteristics. A reference to the website location of each respective EWMP would be helpful. It is important to know the soil types and their respective infiltration rates in order to understand the feasibility of implementing certain structural BMPs. I realize that this may be covered in more depth under the Geology, Soils and Seismicity category, but there is no clear reference in the accompanying summary.

2. BACKGROUND

2.1 Stormwater/Water Quality

COMMENT No. 8: (Page 7) The first paragraph states, "Discharges may adversely affect receiving surface water quality with pollutants such as bacteria, nutrients (nitrogen and phosphorus), aluminum, copper, lead, zinc, diazinon, and cyanide. Aquatic toxicity, particularly during wet weather, is also a concern. Stormwater and non-stormwater discharges of debris and trash are also a pervasive water quality problem in the Los Angeles region." It would be beneficial to add the types of pollution stemming from the natural environment (non-anthropogenic), too. What kind of pollutants exists in the stormwater resulting from the erosion of soil from natural settings and undeveloped vacant parcels of land?

2.2 Total Maximum Daily Loads

COMMENT No. 9: A sentence in section reads, "A TMDL is defined as the "sum of the individual waste load allocations (WLAs) for point sources and load allocations for nonpoint sources and natural background" (40 CFR 130.2), such that the capacity of the water body to assimilate constituent loads (the loading capacity) is not exceeded." What currently happens when TMDLs are exceeded? Is there a monetary fine?

2.3 MS4 Permit

COMMENT No. 10: (Page 7) This section states, "The MS4 Permit identifies conditions, requirements, and programs that municipalities must comply with to protect regional water resources from adverse impacts associated with pollutants in stormwater and urban runoff." What currently happens if these conditions or requirements are not met by municipalities? Is there a monetary fine?

3. Enhanced Watershed Management Plans

COMMENT No. 11: As mentioned in the first comment under the Introduction heading, please elaborate on the approval process. Specifically, how the PEIR fits into the LARWQCBs approval of the EWMPs. Additionally, there's a sentence that states, "The 2012 MS4 Permit includes provisions that allow Permittees to voluntarily choose to implement a EWMP to achieve permit compliance with RWLs." How will permit compliance be verified and who will monitor compliance?

4.1.1 Regional Structural BMPs

COMMENT No. 12: The second paragraph states, "Opportunities for Regional BMPs will be identified and evaluated within and across subwatersheds, with focus on the multi-benefit potential for capture and reuse of wet-weather flows within variable drainage areas." What method and level of detail will be used to identify and evaluate BMPs? This paragraph goes on to state that, "Potential project locations may include areas with open spaces, whether they are within parks, large parking lots, or vacant spaces," indicating that a geographically site-specific analysis is appropriate under this PEIR. Collectively, there is over 190 regional projects identified in Attachment A being proposed by the various members of the WMGs. Based on the site-specific potential project locations stated above, is it feasible to include an analysis of the project list (Attachment A)?

5 Potential Environmental Impacts

COMMENT No. 13: This section (nor the LACoH2Osheds website) does not reference the completion of an Initial Study per Section 15063©(1), nor provide clarity as to what is not being decided. How did the Lead Agency identify the effects determined not to be significant? Is there an explanation of the reasons for determining that potentially significant effects would not be significant?

COMMENT No. 14: The sentence that states, "The PEIR will assess the physical changes to the environment that would likely result from the construction and operation of EWMP projects," does not reference assessing the physical changes that would result from 'maintenance' of said project(s).

COMMENT No. 15: Air Quality Category – In an effort to help identify California communities that are disproportionately burdened by multiple sources of pollution, this category should also consider evaluating the air quality data collected by the Office of Environmental Health Hazard Assessment's (OEHHA) California Communities Environmental Health Screening Tool Version 2.0 (CalEnviroScreen 2.0).

COMMENT No. 16: Hazards and Hazardous Materials – In an effort to help identify California communities that are disproportionately burdened by multiple sources of pollution, the following sentence, "Potential hazards will be evaluated and assessed by reviewing the data collected by the California State Water Resources Control Board (SWRCB) GeoTracker and the California Department of Toxic Substances Control (DTSC) Envirostor databases," should also consider evaluating the data collected by the OEHHA California Communities Environmental Health Screening Tool Version 2.0 (CalEnviroScreen 2.0).

COMMENT No. 17: POPULATION AND HOUSING/GROWTH INDUCEMENT – Assuming that not all cities have the staff or capacity to implement the objectives of the plans and policies of EWMPs, what are some of the unforeseen consequences of minimal to no implementation of BMPs or LID in communities/cities with low median household income? Will these cities bear an unfair burden of paying non-compliance fines?

Sincerely,

Enrique Huerta, M.S.

Attachment A

Reasonably Foreseeable Water Resources Projects in LA County - NOP: Draft PEIR, EWMP

	Project Name	Project Proponent	Project Description
1	25 mgd Sea Water Desalinization Plant in West Basin	West Basin Municipal Water District	The project proposes to construct a 25mgd Seawater Desalination Plant in West Basin's service area for potable water use. First, a Demonstration Plant will be necessary to evaluate the water quality performance and treatment stability, assess efficient energy recovery devices, optimize operational performance utilizing full scale process equipment, and to acquire the necessary data to achieve regulatory compliance and approval. West Basin and its partners will perform the full battery of water quality analyses to ensure that the demonstration project meets all Federal and State Drinking Water Standards. With the knowledge gained by operating the Demonstration Plant, West Basin expects to move forward with the planning, design, and construction of a full scale 25,000 AFY seawater desalination and education facility. West Basin anticipates operating the Demonstration Plant for at least two years while plans are being completed and finalized for the full-scale plant. The Demonstration Facility is in design.
2	AMR Conversion Project	Los Angeles County Waterworks District No. 29	The project consists of replacing the older water meters in Waterworks District No. 29. The District maintains approximately 7,700 water meters in Malibu and Topanga. About 40 percent of the meters are older than 15 years and 30 percent are 20 years or older. Meters lose accuracy over time, representing unaccounted water consumption in the District. Older meters typically under-measure water use. Replacing old water meters with automated meter reading (AMR) meters will yield timely, reliable water consumption patterns for detecting leaks and producing accurate customer bills. Higher bills with higher water use volumes will alert District customers about their water consumption habits, which is expected to encourage conservation. The current practice is to replace meters as the meters stop functioning or become unreadable. About 20% of the water meters in Malibu and Topanga have been replaced with AMR meters.
3	Agoura Road Gap Recycled Water System Expansion	Las Virgenes Municipal Water District	The project would extend the existing recycled water line along Agoura Road to serve existing customers who use potable water for landscape irrigation. Pipeline for this project is estimated at 9250 feet of 8 inch pipe and would connect to existing recycled water pipelines on both east and west sides of the extension. This would connect the gap that exists between Reyes Adobe Road and Lewis Road and improve the system hydraulics and reliability of service to customers. The estimated maximum daily demand for the Agoura Road Extension is 73 gpm.

4	Agua Amarga Lunada Canyon Habitat Restoration	Palos Verdes Peninsula Land Conservancy & City of Rancho Palos Verdes	Restore 20 acres at Agua Amarga Reserve, to provide habitat for the Federally threatened Coastal California gnatcatcher, the Federally endangered Palos Verdes blue butterfly, and the rare cactus wren. A one-mile trail in the Reserve continues to the coast. A year-round flow of water is discharged to the head of Lunada Canyon via a County of Los Angeles storm drain; the water then flows below ground through the canyon, the course of an historic blue line stream, and re-emerges at its confluence with Agua Amarga Canyon, also a blue-line stream that flows into the Santa Monica Bay. Invasive plant species provide little water infiltration and threaten to spread to the pristine lower canyon. The project will remove invasive plants, restore 18 acres of riparian and coastal sage scrub; install 2 acres of cactus scrub in highly degraded fuel modification areas; improve trails and add trail signage. Interpretive signage will educate hikers about creating wildlife-friendly fuel modification zone.
5	Aliso Creek - Limekiln Creek Restoration Project	City of Los Angeles Bureau of Sanitation Watershed Protection Division	Stormwater runoff would be diverted from Aliso Creek and from Limekiln Creek and stormwater runoff generated on site will be treated. In addition to providing water quality benefits, the project will result in the creation of self-sustaining riparian woodland vegetation and other re-vegetated areas, as well as providing recreational opportunities to area residents.The site has an area of approx. 11.8 acres and is currently used as a flood control facility, provides open space, and serves as part of Vanalden Park.Wet weather runoff and dry weather runoff from an approx. 12,091 acres that drains to the confluence of Aliso Creek and Limekiln Creek is going to be captured and conveyed to the project site for treatment.On-site generated flows will also be captured and treated.Proposed BMPs to treat captured water:Low flow channel diversions and pumping:Pre-screening devices, Bioswales, Vegetated detention basins, Landscaping with native upland and riparian species and Installing decomposed granite pathways.
6	Alondra Regional Park	Successor Agency, City of Compton	Alondra Regional Park is a multi-benefit project that serves disadvantaged communities while meeting IRWMP water management objectives. The entire site is currently an empty 18-acre lot owned by the City of Compton. This proposal is for Phase I of the project and covers 12 acres on the southern half of the parcel. The park provides recreational opportunities while improving surface water discharges into the Dominguez Channel Watershed. The project site sits low on the drainage area and will capture 1.5AF of stormwater. The park features a swale and daylighted stream to remove nutrients and pollutants that otherwise flow to local waterways. The large biofiltration field will reduce peak flows, improve water quality and occasionally serve as a recreational field. Surface water quality improvements would help the region meet requirements under the Municipal Separate Storm Sewer System Permit. The project also includes native shrubs and trees that will increase habitat for birds, butterfly species and mammals.

7	Alternative Decker Canyon Recycled Water Extension	Las Virgenes Municipal Water District	As with the original Decker Canyon Recycled Water Extension pipeline route, this alternate would primarily serve the Malibu Golf Club, the largest potable water user in the LVMWD service area. The 2007 Master Plan advocated that serving the golf course with recycled water could be an important strategy for relieving eventual stress on the potable system. The longer alternative route used in this project would also serve other demands along the way. In addition to the golf club, significant recycled water demands are expected to come from a new development (Triangle Ranch) and conversion of the existing Medea Valley ranchettes to recycled water use. The project is projected to deliver 459 AF/Y of recycled water, offsetting the same amount of potable demand that would occur if the extension were not built.
8	Andrews Park Subsurface Storage, Use and Infiltration Project	City of Redondo Beach	The project will consist of a diversion, conveyance pipes, a gross solids removal device (GSRD), an irrigation storage tank, and an infiltration gallery. Dry- and wet-weather flows will be diverted from the existing storm drain up to the maximum diversion flow rate and will then enter the storage tank through the conveyance pipe and GSRD. Once the storage tank reaches a depth of 1.5 feet, flows will be pumped to be used for onsite subsurface irrigation. When the storage volume of the irrigation tank reaches capacity, runoff will flow via an overflow pipe into the infiltration gallery, where the water will infiltrate subsurface soils. When continual flows fill the infiltration gallery and irrigation storage vault to storage capacity, diverted flows will back-up through the diversion piping and prevent additional flow diversion until capacity is freed up due to irrigation use and/or infiltration losses.
9	Arroyo Seco Confluence Gateway	Arroyo Seco Foundation	The Confluence Gateway Greenway Program will restore a 1/3 mile stretch of urban land alongside the Arroyo Seco, in the Arroyo Seco Scenic Byway Corridor, into a riparian greenway and open space park with native landscaping and a bicycle/pedestrian path. Not only would the project embody a first step in enhancing river access and recreation opportunities, it would provide a key link between the planned Los Angeles River greenways at the confluence and the Metro Rail station in the historic Lincoln Heights neighborhood, thus enabling light rail and bicycle access to the Arroyo Seco and the Los Angeles River. Ultimately, the Arroyo Seco greenway is envisioned to extend to South Pasadena, and this initial segment at the confluence would be an important hub in the regional river parkway and bicycle trail network.

10	Arroyo Seco North Branch Creek Daylighting	Arroyo Seco Foundation	Naturalize north branch storm drain and restore stream through Sycamore Grove Park. Primary Objectives Addressed by the Project: By re-establishing an urban stream, this project addresses water quality, riparian habitat restoration, groundwater recharge, flood management, and public education. The Sycamore Grove Park site is approximately 800 feet long and 400 feet wide. This 8-acre site is located in northeast Los Angeles and situated west of the SR-110 (). This site encompasses Sycamore Grove Park and is bounded by South Avenue 49 to the northeast, the SR-110 to the east, medium density residential uses to the south, and North Figueroa Street to the west. Sycamore Grove Park is a landscaped area consisting of a large lawn, playground, and parking area. The North Branch tributary is contained within a storm drain beneath Sycamore Grove Park.
11	Baldwin Lake	Los Angeles Arboretum Foundation	For centuries the waters of Baldwin Lake have sustained human endeavor. A rich historic site, its role began in the Native America period when springs and marsh, precursors to today's lake, supported nearby habitation. In the late 19th Century, Elias Jackson Baldwin chose the Lake as the center for agriculture and land development that shaped the establishment of the east San Gabriel Valley. Today, as the centerpiece of the Los Angeles County Arboretum, the Lake is an educational and scenic resource serving hundreds of thousands of visitors. Looking to the future, Baldwin Lake is envisioned as a model for community-based environmental stewardship and regional approaches to water management and conservation. Ideally located at the edge of the Raymond Basin aquifer, the Lake offers great potential as the nexus for water management and ground water recharge for the Arboretum's 127 acres, as well as the surrounding urban watershed. Educational programming that interprets the history of the Lake, particul
12	Ballona Creek Water Quality and Beach Improvement & Beneficial Use Project	City of Los Angeles Bureau of Sanitation Watershed Protection Division	Project is to implement the valuable uses of stormwater and to improve the water quality in Ballona Creek Watershed. Ballona Creek Low Flow Treatment Facility (LFTF), also known as North Outfall Treatment Facility (NOTF), is one of several projects proposed in Ballona Creek TMDL Implementation Plans for Bacteria, Metals, and Toxic Pollutants. The LFTF includes a 1 million gallon storage facility and has the capacity to treat up to 150 cfs, including screening of coarse, fine sediments, and disinfection with sodium hypochlorite. NOTF was constructed in 1987 by City of Los Angeles. The project proposes to use the existing treatment facility and construct a low-flow diversion structure in Ballona Creek Channel to divert and treat full dry-weather flow and partial wet-weather flow. 65 percent of Ballona Creek Watershed (85 square miles) is located upstream of the Project, with average dry-weather flows ranging from 14 to 25 cfs. Treatment will include coarse screens, sedimentation, filtration, and disinfection.

13	Be A Water Saver Water Conservation Program	City of Burbank Water and Power	The City of Burbank proposes to expand and increase water conservation through the expansion of a comprehensive indoor/outdoor financial incentive program that will result in immediate and sustainable water savings. The proposed Rebate Program to install 1,300 HE toilets, replace 300,000 square feet of turf with native landscapes, capture and reuse rain water 3 million gallons of rain water with rain barrels, and increase water conservation education efforts will save an estimated 500 AF of water annually. Grant funding for the proposed project will facilitate greater water savings by providing funding for greater levels of participation sooner than would be realized under typical funding efforts. Furthermore, these benefits will be realized faster by utilizing a proven system for conservation, a truly ready to proceed project. This project has the potential to double participation levels.
14	Bette Davis Park Water Recycling Project	LADWP	This project will consist of planning, design, and construction of approximately 4,625 feet of new 8-inch PVC and Ductile Iron recycled water pipeline to extend Glendale's recycled water distribution system from the intersection of Flower St. and Grandview Ave. to Bette Davis Park. Approximately 4,300 feet of pipeline will be installed within Glendale's city right of way. Through an Agreement with the City of Glendale, this project will be designed and constructed by Glendale's contractors and LADWP will reinburse Glendale for the costs. This will reduce the City's potable demand for non-potable uses. This project will offset up to 75 AFY of potable water with recycled water.
15	Big Dalton Sluiceway Rehabilitation	Los Angeles County Flood Control District	This project will upgrade the sluiceway to function as a low level outlet for regulating flows under high reservoir pressure and repair various facility components for the dam. The existing sluice gate at the upstream end is to be replaced with a new heavy duty hydraulic actuated gate, the sluiceway is to be lined with new pipe for the entire length, and a throttling valve is to be installed at the outlet. Storm releases through the sluiceway will reduce the rate of sediment accumulation and prevent sediment deposits at the face of the dam. Incoming sediments during storm flows could be routed through the reservoir to restore a more natural sediment transport system and maintain reservoir capacity
16	Big Dalton Spreading Grounds Improvements	Los Angeles County Flood Control District	The proposed project will modify and motorize the diversion box at Big Dalton Spreading Grounds to better control flows taken into the facility. The spreading basins will be reconfigured to increase percolation rates and storage capacity. An intake will be constructed from Little Dalton Diversion Channel so that additional storm flows can be diverted to the facility. A proposed outlet from Metropolitan Water District's PM-26 imported water line to the Little Dalton Diversion channel will enable imported water to be recharged at the spreading grounds.

17	Big Rock Bypass	Los Angeles County Waterworks District No. 29	The project consists of constructing three 18-inch diameter bypass water pipelines approximately 1,500 feet in length within the areas of active landslides along Pacific Coast Highway. This bypass will serve as a permanent replacement of an existing 30-inch diameter water pipeline that has experienced significant breaks resulting in large water loss. The proposed pipeline will be raised to a shallow trench and protected by a reinforced concrete box covered with steel plates to provide quick access if any leakage occurs. In addition, 18-inch Flexible Expansion Joints will also be installed at several locations with the areas of the active landslides to prevent damage or rupture of pipelines from ground movement.
18	Big Tujunga Dam Spillway Dam	Los Angeles County Flood Control District	Construction of a dam within the spillway at Big Tujunga Dam to increase the maximum storage capacity of the reservoir by approximately 705 acre-feet.
19	Big Tujunga Reservoir Sediment Removal	Los Angeles County Flood Control District	The 2009 Station Fire was the largest fire in Angeles National Forest recorded history and burned over 160,000 acres before containment on October 16, 2009. Approximately 87% of the watershed tributary to Big Tujunga Reservoir was affected. On average, a watershed will take five years or more to recover from a forest fire burn. During this time, increased amounts of debris production are anticipated from the denuded ground surface. Based on the 2010-11 storm season surveys, the total amount of sediment in the Big Tujunga Reservoir is approximately 2 million cubic yards. The County of Los Angeles Department of Public Works on behalf of the Los Angeles County Flood Control District proposes a sediment removal project to permanently remove up to 4.4 mcy of sediment from Big Tujunga Reservoir. Sediment will be excavated and transported using low emission trucks or conveyor belt to Maple Canyon Sediment Placement Site adjacent to Big Tujunga Dam. The project will be completed over four years starting in the sum
20	Boulevard Pit Stormwater Capture Project	LADWP	Acquire and develop Boulevard Pit into a multi-use retention and recharge facility to enhance stormwater conservation.
21	Branford Spreading Basin Cleanout and Pump	Los Angeles County Flood Control District	Branford Spreading Ground has very low percolation rates compared to the Tujunga Spreading Ground directly across the Tujunga Wash Channel. This project will install a pump from Branford Spreading Ground to direct water into the Tujunga Spreading Ground leading to more groundwater recharge. In addition, the project will clean out the clogging layer at the bottom of basin, which will also improve percolation rates.

22	Broadway Neighborhood Stormwater Greenway Project	City of Los Angeles Bureau of Sanitation	In partnership with Water Replenishment District of Southern California and it's "Regional and Distributed Stormwater Capture Feasibiltiy Study," the proposed project will design and implement stormwater Best Management Practices (BMPs) in the City of Los Angeles with the primary goals of TMDL compliance and stormwater infiltration. Three levels of BMPs will be developed; local parcel based Low Impact Development (LID) for 8 acres (60 residential parcels), neighborhood scale LID for 12 acres (3 residential streets and 2 blocks of commercial streets), and a sub-regional scale facility for 30 acres of mixed land uses. The local and neighborhood BMPs will capture and infiltrate all dry-weather flow and up to the ¾ inch storm. The sub regional BMP will capture up to the 2 inch storm for 30 acres. The sub regional BMP will also receive dry-weather flows from 228 acres of mixed land uses. Designs will be standardized to remote widespread implementation.
23	Bull Creek Stormwater Capture	Los Angeles County Flood Control District	Historical records show that an annual average of 625 acre-feet of water passes though Bull Creek. All flows from Bull Creek are lost to the ocean via the Los Angeles River. This project proposes conserving the lost water by diverting flows from the new LADWP facility using a rubber dam and conveying flows through a pipeline to Pacoima Spreading Grounds where it would be captured and recharge the local aquifier.
24	Bull CreekLos Angeles Reservoir Water Quality Improvement Project	LADWP	Plan, design, and construct stormwater conveyance facilities for compliance with the Enhanced Surface Water Treatment Rule. Facilities will be designed according to standards adopted by Department of Water Resources, Division of Safety of Dams. Improvements include widening a portion of the Bull Creek Extension Channel, realigning a section downstream of the widening, construction of a new diversion structure and overflow structure, and improvements to inlet structures. The Los Angeles Reservoir spillway will be removed from service. Proposed design facilitates a future stormwater capture program.
25	Burbank Partnership Water Recycling Project	LADWP	The Burbank Partnership Water Recycling Project involves the planning, design, and construction of approximately 27,000 feet of recycled water pipelines in the North Hollywood area. The three individual segments that comprise the project are the Chandler Boulevard Bike Path segment, the Whitnall Dog Park segment, and the North Hollywood Park segment. These segments will connect to Burbank's recycled water distribution system at three separate connection points and will be served by recycled water treated at the Burbank Water Reclamation Plant. This project is expected to offset up to 285 AFY of potable water with recycled water.

26	Burbank Water and Power Recycled Water System Expansion, Phase 3	City of Burbank Water and Power	The third phase of the City of Burbank's recent recycled water system expansion. As a result of previous phases, over 20 miles of recycled water pipelines have been installed resulting in the distribution of over 2,300 AF of recycled water annually; amounting to 13% of the City's water demand by the end of 2014. The City will continue expanding its recycled water distribution to offset potable water use in this phase by constructing two new recycled water pipelines known as, the LA Equestrian Center (LAEC) and the Naomi pipelines. The LAEC is located on the borders of the cities of Burbank and Los Angeles consisting of landscape areas, stables, offices and corrals; the latter requiring dust control with water trucks. The Naomi pipeline would primarily provide recycled water to a very large commercial data center and smaller customers. Completion of these pipelines will increase recycled water distribution by an estimated 61 AFY, resulting in a direct and immediate potable water savings of 61 AF annually.
27	C Marvin Brewer Desalter Brackish Groundwater Facility Expansion	West Basin Municipal Water District	The Desalter currently has the capacity to extract up to 2,000 acre-feet annually of brackish water. In 2003 the old wells at the site were decommissioned and construction began in 2005 for the first replacement well. The facility became operational in 2006 at a reduced capacity using the new well and the original RO unit. The facility has not been operating to its full capacity since it came online again in 2007 because of water quality issues. Funding is also needed to correct the water quality problems in order to get the facility to its full operating capacity. The proposed 500 AFY capacity expansion will allow the facility to become operational at its full capacity of 2,000 acre-feet per year. The site is already owned by California Water Service Co. and leased by West Basin and is developed as a desalting facility. The expansion will include the installation of a new production well, and the addition of an acid pretreatment unit and a reverse osmosis treatment unit on the existing site.
28	CITYWIDE STORM DRAIN CATCH BASIN CURB SCREENS	CITY of CALABASAS	Installation of storm drain catch basin curb screens at all applicable locations citywide. These screens are the stainless variety approved curb by Los Angeles County. The purpose of the curb screens is to stop trash from entering the catch basins which eventually discharge into both the Los Angeles River and Malibu Creek watersheds. By implementing this project, City of Calabasas will be in compliance with the Trash TMDL both for LA River and Malibu Creek watersheds. Based on studies done, reduction in trash and debris loadings will also reduce Bacterial and sediment loading in the watershed. By implementing the project, disadvantaged communities downstream of Calabasas in Los Angeles River will benefit from cleaner water. The scope work consists of measuring all catch basin openings, drafting RFP with detailed specifications, soliciting proposals from the list of Los Angeles County's approved venders, negotiating contract, implementation/construction, monitoring and reporting.

29	Caballero Creek & Los Angeles River Confluence Park	Mountains Recreation and Conservation Authority	The project will convert a 1.55 acre vacant parcel at the confluence of the Los Angeles River and Caballero Creek into a publicly-accessible natural park with habitat restoration, paths, site furnishings, water quality improvements, waterfront-access, and educational amentities. The design utilizes an innovative mixes low-tech mechanical and biological methods to filter and infiltrate storm waters increases regional water quality. The project creates a multi-benefit park that provides ecosystem services as well as cultural services, like recreation and eco-tourism. The project concept was developed in partnership with the City and County of Los Angeles who have committed to retain ownership, maintenance and operation responsibilities while allowing the Mountains Recreation and Conservation Authority (MRCA) to oversee design and construction. Nearby Reseda High School will monitor the project and use it for hands-on learning and community service opportunities.
30	Camino San Rafael Recycled Water Project	Glendale Water & Power	This project will consist of design and construction of approximately 8300 feet & 6000 feet of new 4"and 8" PVC recycled water pipeline, respectively. The project also consists of installing a two booster stations. This project will extend Glendale's recycled water distribution system to provide recycled water for common area irrigation to the Camino San Rafael Homes. This project will offset up to 90 AFY of potable water with recycled water. This will reduce the City's demand on potable water.
31	Carson Regional Water Recycling Project	West Basin Municipal Water District	The Carson Regional Water Recycling Expansion Project includes the expansion of the existing recycled water treatment facility and the construction of several laterals. This is a new demand on the system and will require expansion of treatment process capacity and conveyance to include; lateral pipelines, pump stations, treatment units, storage tanks, and waste management facilities. The BP Refinery requires single-pass reverse osmosis treatment units. BP Refinery is estimating a need of 2,100 acre-feet per year (AFY). The project will be further expanded to serve customers within the City of Los Angeles' jurisdiction for the refineries in the port area. The City will need recycled water to satisfy a use of 9,300 AFY. The City is in the preliminary design stage.

32	Chase Street Stormwater Greenway	City of Los Angeles Bureau of Sanitation, Watershed Protection Division	The Project will provide a street-end interpretive area on Bull Creek at Chase Street, and install a Stormwater Greenway along Chase Street from the eastern street end on the north side right-of-way to Hayvenhurst, and on the north and south right-of-way to Gothic. Vegetated planters in the parkways will capture and infiltrate street runoff, and will provide storm water filtration, and tree shading. The Bull Creek street-end will feature a native landscape as habitat and a recreational rest stop along the channel, and will provide an interpretive site for wildlife selected and supported by the specific native planting used in the project. A channel diversion from Bull Creek, with a pre-filter and lift station, will transfer runoff through a pipeline to a local Sod Farm where it will be used to irrigate up to 30-commercial acres. The project will integrate water conservation goals (LADWP), Storm water objectives (BOS), Economic enhancements to city property (LAWA), & public health and recreation benefits.
33	Chemical Study - Rio Hondo	Los Angeles County Flood Control District	This project will install a chemical treatment system at the Rio Hondo Coastal Spreading Grounds to remove sediment fines from the water and improve the percolation rates. A Percolation Optimization Investigation (POI) report was done by Montgomery Watson Harza (MWH) in 2003 to evaluate the County's spreading grounds and the impact of suspended solids on percolation rates. The report made a number of recommendations and the recommendations will be implemented at the Rio Hondo flood control facility. The project will install a coagulant chemical feeder and mixer at the grounds intake. This will allow the silt in the stormwater to coagulate and settle prior the cleaner water to flowing into spreading grounds. When this occurs, the spreading grounds will be able to percolate more water, thus conserving and recharging more groundwater.
34	Chevy Oaks Recycled Water Project	Glendale Water & Power	This project will consist of design and construction of approximately 920 feet, 1900 feet & 2100 feet of new 4", 8" and 12" PVC recycled water pipeline, respectively. The project also consists of installing a small booster station. This project will extend Glendale's recycled water distribution system to provide recycled water for irrigation to the Chevy Oaks Homes. This project will offset up to 30 AFY of potable water with recycled water. This will reduce the City's demand on potable water.
35	City of Carson Rain Barrel Give Away Phase II	City of Carson, Development Services Department, Engineering Services Division	At completion of a prior grant, a modest amount of money remained unused. With the acquiesence of the granting agency, the City of Carson purchased 16 rain barrels and set up a website lottery system in order to award them to residents. The response was overwhelming and with no advertising over 100 contestents were disappointed to not receive a rain barrel. This proposal would lead to the purchase of an additional 1,000 rainbarrels (depending on cost and grant amount) to restock the lottery reserves. Advertising and management of the program would be provided as part of the City of Carson grant match. More information on Fiskar Rain Barrels is available at http://www2.fiskars.com/Products/Yard-and-Garden/Rain-Barrel-Systems

36	City of Monrovia Fire Department - Training Center Water Recycling Project	Upper San Gabriel Valley Municipal Water District	Upper District in cooperation with the City and Fire Department of Monrovia are submitting this project incorporating both dry and wet weather runoff capture, treatment and storage for the new Regional Training Center. Once collected, the fire training water and the 85th percentile of a 24 hour storm event (as required by the City's MS4 permit) will be treated before being discharged into storage holding tanks which will store the treated water for future reuse by the training facility. The objective is to offset the use of potable water at the facility, eliminate storm water discharge and capture wet-weather storm water runoff. Finally, if the wet-weather event is larger than the 85th percentile, then provisions are being considered to treat as much of the additional wet-weather storm water runoff via a natural infiltration gallery (bioswale) before being discharged into the City's storm water system.
37	Cogswell Dam Inlet/Outlet Works Rehabilitation Project	Los Angeles County Flood Control District	This project will consist of refurbishment and upgrades to the outlet works, tunnels, and repair of various facility components at Cogswell Dam. The project will increase operational effectiveness for flood control and water conservation. The project will involve: a complete overhaul of the dam's entire inlet/outlet works; upgrade on the electrical control equipment; repair of downstream facilities; structural repairs on the upstream facing slab; security upgrades; and other various repairs essential for maintaining and operating a flood control facility. The overall project intent is to improve Cogswell Dam for maintaining dam safety, increased efficiency and reliability of flood control operations, and enhancement of water conservation efforts.
38	Cold Creek Diamond Acquisition	Mountains Restoration Trust	The project will acquire 4.87 acres (APN 4455-021-040) of natural undisturbed open space within the existing 1348-acre Cold Creek Preserve in the Santa Monica Mountains National Recreation Area. The acquisition is part of the state-funded Cold Creek Restoration Plan designed to acquire 539.06 acres to protect the wild and scenic, perennial Cold Creek, the habitat linkage between Topanga State Park and Malibu Creek State Park, the values of Los Angeles County's Significant Ecological Area #9, and a future venue for environmental education, research, and recreation. The area includes significant oak, sycamore, and willow communities, supports a range of wildlife including mountain lion, gray fox and raptors. The pure waters once supported the federally-listed endangered southern steelhead trout.
39	Conservation Budget Based Tiered Rate Structure	West Basin Municipal Water District	This project helps our customer agencies to develop a water conservation, budget-based rate structure for their customers. The project is beneficial to West Basin's cities and retail water agencies because it provides a pricing structure that will incentivizes its customers to conserve water. This pricing method has been used in other parts of the State and has been successsful at reducing water usage and reqarding those who do so with lower rates on their water bill.

40	Conversion of 237th Street Sump Tributary to Machado Lakes for Nutrient and Toxics TMDL BMPs	City of Torrance	This project would convert the 237th St. Sump (4.5 acre-feet) into a retention/infiltration basin BMP for Toxics and Nutrient TMDL compliance and provide open spaces for wildlife habitat. This project would install diversion structures that would divert the first 4.5 acre-feet of stormwater from a 71 acre tributary area away from the system tributary to Machado Lake (Wilmington Drain) to be retained and infiltrated in this basin. Trash screens would be installed at the catch basin in the watershed by a seperate project. During the dry season the basin would remain an open space for wild life and retain urban run-off and nutrients form 71 acres. By diverting stormwater back into this basin, the City and County storm drain systems would have more capacity during rain events. This project would also increase groundwater recharge.
41	Creek Crossings Repairs	Los Angeles County Waterworks District No. 29	This project consists of repairing corroded and deteriorated sections of aboveground pipeline and developing a Corrosion Monitoring, Control, and Maintenance Program. The Waterworks District 29 transmission water pipeline runs along the Pacific Coast Highway in Malibu. The proposed pipeline repairs are located at eight creek crossings attached to bridge structures. The project will significantly prevent future leaks and breaks in the main transmission pipeline which is the primary source of water supply for Malibu and Topanga. The development of a maintenance program is essential to maintaining water supply reliability for the region.
42	Deauville Distributed Water Reuse Project	City of Santa Monica	The project would harvest stormwater and brackish groundwater for high level treatment and non-potable use around the City, replacing the use of imported potable water. The City would install a 1.3 million gallon storage tank next to the Santa Monica Pier, Deauville lot, to harvest stormwater from the Pier sub-watershed during rain events and brackish groundwater during dry periods. The project would have an optional overflow to an infiltration gallery. A saline extraction well would be installed in sand next to the storage tank. The project would install pre-treatment catch basin inserts in the drainage area or a centralized hydrodynamic separator-screening device to remove trash and debris from stormwater. Modular nanofiltration (NF) and a saltwater reverse osmosis (RO) treatment systems at the site would treat these stored local water resources to high quality for various uses around the City in the existing recycled water system. All concentrated brine by-product would be sent to the sanitary sewer.
43	Decker Canyon Recycled Water System Extension	Las Virgenes Municipal Water District	The Decker Canyon recycled water pump station, pipeline, and tank would furnish recycled water primarily to Malibu Country Club Golf Course and Tract 47962-Sycamore Canyon Estates near the pump station location and other nearby ranchettes. The project would comprise a high-lift pump station, ~23,000 linear feet of pipeline along Westlake Blvd and Decker Canyon Rd, and a 60-foot diameter concrete tank near the corner of Decker Canyon Rd and Mulholland Hwy. Approximately 229 AF of recycled water per year would be used by this project.

44	Del Rey Lagoon Water Quality Improvement Project	City of Los Angeles Bureau of Sanitation Watershed Protection Division	The Del Rey Lagoon Water Quality Improvement Project proposes to improve water quality by reducing the source and amount of fecal indicator bacteria in the Del Rey Lagoon and surrounding waterbodies such as the Santa Monica Bay and Dockweiler Beach. Project components include stormdrain systems, vegetated swales, irrigation system retrofit, and drainage modifications. Education and outreach to the public will also be included in the project scope. The vegetated swales are designed to capture, retain, and treat runoff from the adjacent residential, transportation, and landscaped area during dry weather and partially during wet weather. Existing irrigation system will be retrofitted with a smart irrigation system to reduce excessive irrigation runoff, thereby conserving water and reducing flow. Catch basins and storm drains will be installed to capture and divert excess wet-weather flow into the sewer system. Project also includes a nature viewing deck and educational displays that explain local flora-fauna.
45	Demonstration Gardens at Los Angeles County Fire Department Stations	West Basin Municipal Water District	This project involves the installation of drought-tolerant demonstration gardens at a minimum of five fire stations throughout the West Basin service area. These gardens will replace turf and/or concrete areas that are directly in front of the fire stations in order to provide a maximum visibility to the public. The gardens will be utilizing drought-tolerant and/or native plants that will be designed by professional landscape designers that specialize in climate-appropriate plans and trees. The main goal is to provide water conservation and runoff reduction measures and secondarily to educate the public about the measures so that they can create these spaces at their own homes. West Basin strives to reduce demands by implementing conservation and education programs throughout the communities it serves. This project aims to continue implementing outdoor water conservation/education programs to influence the public to create these spaces in their own homes.
46	Devil's Gate Dam and Reservoir Water Conservation	Los Angeles County Flood Control District	This project proposes to conserve stormwater by holding a reservoir pool behind Devil's Gate Dam and diverting the water to Eaton Wash Dam and Eaton Wash Spreading Grounds for poststorm groundwater recharge. A pump will be installed in the Devil's Gate Dam reservoir and water will be pumped out and conveyed through over 26,000 feet of pipeline to Eaton Wash Dam where it can be held for recharge at downstream spreading ground facilities.

47	Devil's Gate Reservoir Sediment Removal and Management Project	Los Angeles County Flood Control District	The 2009 Station Fire was the largest fire in Angeles National Forest recorded history and burned over 160,000 acres in the San Gabriel Mountains. Approximately 68% of the watershed tributary to Devil's Gate Reservoir was burned and as a result of the storms that occurred in the two wet seasons after the fire, sediment levels in the reservoir increased by more than one million cubic yards. The County of Los Angeles Department of Public Works on behalf of the Los Angeles County Flood Control District is planning a sediment removal project of up to 4 million cubic yards. A sediment removal project from behind Devil's Gate Dam is vital to the health of the Arroyo Seco flood control system. The goal of this project is to restore flood control capacity and establish a reservoir configuration more suitable for routine maintenance activities. The project will last approximately 5 years with construction starting in 2014.
48	Dominguez Channel Greenway Phase III	Los Angeles County Flood Control District	The project will consist of development of a native landscaped greenway and bikeway/pedestrian trail along the north side of the Dominguez Channel, between Vermont Av and Normandie Av. The project will include the following: access/maintenance road improvements for the new/improved bikeway; AC repair and replacement, slurry seal, American Disability Act (ADA) access ramps and bikeway/pedestrian signage and striping. Landscaping improvements include landscaping using native and drought-tolerant plants, irrigation, as-needed fencing repair/replacement. Educational/interpretive signage will also be included along the bikeway/pedestrian trail. A study is also recommended to consider additional pedestrian crosswalks with street lamp lighting for added safety. The project is currently on hold until the LACFCD completes a study to address deficiencies in its levees.
49	Dominguez Channel Trash Reduction Via ARS Installation in the City of Carson, CA	City of Carson, Development Services Department, Engineering Services Division	This project would install Automatic Retracting Screens (ARS) in the 1800 Storm Drain Catch Basins in the City of Carson. The proponents favor ARS to collect trash at street level where the trash can be quickly and cost effectively collected weekly by the existing City Street Sweeping Contractor and eliminates the need for other more costly and difficult to maintain downstream trash control systems. This project anticipates the continuing development of local and state waterway trash control efforts and alleviates the need to develop these expensive federal, state and local requlatory mandates. In comparison to other "downstream" trash control systems, the maintenance status of ARS is easily assessed and visible to the public, which is then able to report those locations where maintenance is warranted. Since ARS systems are located in the street sweeper path, maintenance (trash collection) occurs weekly, the trash stays dry and is less subject to the degradation that generates other pollutants (bacteria).

50	Dominguez Gap Spreading Grounds West Basin Percolation Enhancement	Los Angeles County Flood Control District	The proposed project will increase the percolation within the spreading grounds facility in order to increase groundwater recharge. The preliminary scope includes removing between 5 to 10-feet of clay sediment or installing vertical trenches/drains through the poorly draining strata in the facility's west basin. Preliminary studies have been conducted including boring samples which will be used to further develop conceptual plans and estimate project benefits.
51	Duck Farm River Parkway Phase 1 - Water Enhancement Project	Watershed Conservation Authority	The Duck Farm River Park, once a natural floodplain, has been disconnected from the natural processes of the river for decades as a result of urbanization & flood management. The Project reintroduces natural systems through a riparian/pocket wetland/seasonal streambed that improves both habitat and collect, filter & infiltrate stormwater flows onsite, as well as stormwater from the adjacent freeway in collaboration w/Caltrans. The project will transition irrigation source (annually forecasted to require 19M gallons) from imported, highly processed potable water to either local groundwater or recycled water as its source of supply. The public will benefit by being reconnected to nature, the river, & from educational & interpretive programming possible at the site. This change in supply will reduce greenhouse gases & the parks carbon footprint. Outdoor classroom & interactive educational experiences with children will inspire local youth to learn more about our watershed, water conservation & sustainability
52	Eaton Spreading Grounds Intake Improvements	Los Angeles County Flood Control District	The project will increase the intake and storage capacity of the Eaton Wash Spreading Grounds facility. This will improve the facility's ability to recharge storm water into the groundwater basin, thus greatly increasing the sustainable local groundwater supply that is vital for the region. Los Angeles County Flood Control District will replace the vehicle access slab with a metal grate over the spreading grounds drop intake channel and replace the current diversion flashboards with an inflatable gate within the intake channel. These improvements in Eaton Wash Channel will better direct flows into Eaton Wash Spreading Grounds, thereby increasing its intake capacity. Basin 1 will be enlarged to increase the facility's storage capacity. The project will include improvements to the property along Sierra Madre Boulevard that will significantly improve the sustainability, aesthetics, and safety of the public walkway and street view. Two driveway entrances will be improved by increasing the gate set-back fu
53	Eaton Wash Dam Inlet/Outlet Works Rehabilitation Project	Los Angeles County Flood Control District	The dam outlet works rehabilitation project involves the removal of the existing outlet tower and gate house. Once these major components are removed, construction of a gate valve, debris racks, hydraulic power system with a block house, control systems, modification of the outlet works structure, and rehabilitation of the gate valves will commence. It will provide necessary erosion protection measures and improve water quality during low-flow releases from the dam.

54	Elysian Reservoir Water Quality Improvement Project	LADWP	LADWP is planning to cover the existing Elysian Reservoir in order to meet US EPA water quality regulations. In April 2012, the Board of Water & Power Commissioners certified the Environmental Impact Report and approved the floating cover alternative. The project will install a flexible membrane floating cover over the existing water surface. Also included are supporting infrastructure (piping, valves, liner) and site improvements (roadway paving, fencing). The reservoir will operate in the same manner, providing potable storage for the distribution system. Construction is anticipated to being by 2015. In conjuntion with the project, a Community Parks Fund was established by the Board of Commissioners. The fund is to be used for unspecified public purposes related to community parks. Best efforts will be made to locate enhancements primarily in the Elysian Park area, working together with the community and other City of Los Angeles agencies.
55	Encinal Emergency Connection	Los Angeles County Waterworks District No. 29	The project consists of adding a new emergency water source to supply Waterworks District No. 29 through a new interconnection along Encinal Canyon Road at the District boundary with Las Virgenes Municipal Water District (LVMWD). This interconnection would bring water from Metropolitan Water District of Southern California through LVMWD to provide additional supply to the District during emergencies.
56	Foothill Municipal Water District Recycled Water Project	Foothill Municipal Water District	Three hydrologic areas were studied for the development of satellite recycled water facilities. Foothill Municipal Water District (FMWD) is pursuing the construction of one facility near Berkshire Place in La Canada at this time. This project will treat wastewater using a membrane bioreactor and recharge the product into the groundwater basin using infiltration galleries underneath athletic fields for multi-beneficial uses. Cal Poly Pomona has partnered with FMWD and is developing a model that will also capture stormwater for recharge using the same infiltration galleries. A conservation and education component has also been added. Landscaping will be done to showcase drought tolerant plants at both the MBR site and school site. Tours will be available so that students may learn about stormwater capture, groundwater, recycled water, conservation and the watershed since the Arroyo Seco and Hahamongna Park are across the street. This 0.250 MGD plant will save enough energy annually for 80 homes in So. Cal.
57	Freeway Runoff Infiltration Demonstration Project	City of Santa Monica	Divert runoff from a section of the Santa Monica Freeway within the City of Santa Monica, treat and infiltrate within an area near the freeway, either a landscaped area or parking lot. The infiltration zones will be augered, if necessary to by-pass poor permeable soils. There will be pre-treatment before infiltration to remove trash, oil/grease, sediments. It will be a passive system, i.e. gravity-fed and low into the system. The treatment-infiltration areas will be areas either already with a storm drain in the area, or the creation of new ones to harvest the runoff. The goal will be to keep runoff out of the existing storm drains and out of the storm drain system.

58	Glen Oaks Storm Water Capture Project	Los Angeles Beautification Team	The Prop O funded phase I, the installation of six bio-swales and 4 dry wells. This watershed in an average rainfall year brings 300 acre feet of water to Glen Oaks Blvd. Phase I was completed in January 2014 and is currently capturing an estimated 30 acre feet per year leaving approximately 270 acre feet available for storm water capture. Phase II will consist of an additional eight dry wells for an estimated $625,000, plus the cost of City Services (Design fees, permits and over site), that will capture an additional 40 to 45 acre feet annually.
59	Glendale Narrows Habitat Enhancement Project	Council for Watershed Health	The Glendale Narrows Riverwalk will provide approximately one mile of multi-use recreation along the Los Angeles River. There are several invasive plant species that are prevalent adjacent to the Riverwalk in the Glendale Narrows area of the Los Angeles River. These invasive plant infestations jeopardize the improvements to water quality and degrade habitat for native aquatic, avian, reptile, amphibian, and invertebrate species. In collaboration with the City of Glendale Community Services & Parks Department, the Council for Watershed Health (Council) proposes to develop and manage a 3-4 year restoration project to map, control, and monitor invasive arundo and invasive palm trees in the Riverwalk project area in the Glendale Narrows sections of the Los Angeles River. A native plant propagation and replanting effort is also proposed to reestablish riparian plants.
60	Goldsworthy Groundwater Desalter Expansion	City of Torrance	The Goldsworthy Desalter (Desalter) treats water from the saline plume in the West Coast Groundwater Basin for drinking water. The brackish water is treated to meet or exceed municipal drinking water standards through the use of a reverse osmosis system. The existing Desalter produces approximately 2,000 acre-feet of potable drinking water per year. When the Desalter was originally constructed in 2002, it was designed for expansion to over 5000 acre-feet per year of drinking water. In 2012 the Water Replenishment District of Southern California had a Feasibility Study for the Expansion of Desalter prepared for and approved by the U. S. Bureau of Reclamation. The expansion would involve the installation of additional reverse osmosis treatment units, construction of two additional source water wells, transmission mains and related appurtenance. The project also diverts waste water away from Santa Monica Bay where discharges cause TMDL violations for bacteria.

61	Groundwater Reliability Improvement Project (GRIP)	Water Replenishment District of Southern California	The overarching goal of the GRIP Recycled Water Project is to offset the current use of imported water by providing up to 21,000 acre-feet per year (AFY) of recycled water as a reliable supply source for groundwater basin replenishment via the Montebello Forebay within a reasonable timeframe. The source for the recycled water will be the Los Angeles County Sanitation Districts' San Jose Creek Water Reclamation Plant (SJCWRP). Tertiary treated recycled water, advanced treated recycled water (microfiltration, reverse osmosis and advanced oxidation), or a combination of the two will be conveyed from the SJCWRP via an existing pipeline or possibly a new pipeline for recharge in the Central Groundwater Basin through the Montebello Forebay Spreading Grounds or potentially a new injection well field.
62	Groundwater System Improvement Study	LADWP	The purpose of the Groundwater System Imrovement Study (GSIS) is to perform an independent study to identify, characterize, and evaluate emerging water quality constituents for the San Fernando Basin (SFB). This will include a comprehensive analysis that will provide recommendations in developing short and long-term projects, including the design and construction of groundwater treatment facilities, to maximize the use of the groundwater supply in the SFB. As a part of the GSIS, the LADWP will be drilling approxinmately 26 new groundwater monitoring wells, and perform short-term monitoring of existing and new wells, in order to obtain supplemental water quality data necessary for planning the groundwater treatment afcilities in the SFB.
63	Groundwater Treatment Facilities	LADWP	Design and construction of groundwater treatment facilities in North Hollywwod, Rinaldi-Toluca and Tujunga Wellfields in the San Fernando Basin (SFB), with a treatment capacity of 122,900 acre-feet per year.
64	Hansen Dam Golf Course Water Recycling Project	LADWP	Construct 4,500 feet of 20" pipeline, pumping station and pipe support bridge to deliver recycled water from the Tillman Plant to the Hansen Dam Golf Course and other potential future users. Water will be pumped from the Hansen Tank.
65	Hansen Dam Water Conservation Project	Los Angeles County Flood Control District	Hansen Dam, situated adjacent to the Tujunga Wash Channel in the San Fernando Valley, is a vital part of flood control efforts in the Los Angeles River drainage basin. The primary purpose of Hansen Dam is flood control; however the opportunity exists to increase water conservation and water supply through increased water recharge upstream of the dam. The current operation of the dam allows for an average annual water conservation of 17,100 acre feet per year. The Water Conservation Project, which involves utilizing the existing Debris and Flood Control Pools for water conservation purposes by raising their respective maximum elevations to allow for additional water supply storage, would increase the dam's water conservation ability. This extra supply storage would allow for dam releases to downstream spreading grounds and other facilities fo
66	Hansen Dam Water Conservation and Supply	The River Project	Change management regime of Hansen Dam to focus on water conservation by maintaining a water conservation pool within the reservoir during and subsequent to flood season.

67	Headworks East Reservoir	LADWP	onstruction of a 110 MG buried reservoir along with a 4 MW hydroplant at the former Headworks Spreading Grounds to replace the storage capacity lost when Ivanhoe Reservoir is removed from service. Needed to bring the Water System into comliance with state and federal drinking water regulations by the regulatory deadline of November 2014
68	Headworks Ecosystem Restoration	LADWP	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
69	Herondo Parking Lot and Beach Infiltration	City of Redondo Beach	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
70	Hoover, Toll, & Keppel School Recycled Water Project	Glendale Water & Power	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
71	Humboldt Stormwater Greenway	City of Los Angeles, Bureau of Sanitation/Watershed Protection Division	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
72	Improvements to Entradero Storm Drain Channel for Storm Water Infiltration and Habitat Restoration	City of Torrance, SMBBB TMDL Jurisdictional Groups 5 & 6	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
73	Improvements to San Gabriel River Diversion and San Gabriel River Water Committee Canal and Appurtenances	Azusa Light and Water	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
74	Indirect Reuse Replenishment Project	Upper San Gabriel Valley Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
75	Johnny Carson Park Stream Restoration and Park Revitalization	City of Burbank	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
76	Jordan Downs Daylighting Study	Multi-jurisdictional Agencies-LA City Housing and Public Works	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
77	LA River Sixth Street Bridge Greenway	City of Los Angeles, Bureau of Engineering	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
78	LVMWD Woodland Hills Golf Course Recycled Water Pipeline Extension	Las Virgenes Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
79	La Puente Valley County Water District Recycled Water Project	Upper San Gabriel Valley Municipal Water District & La Puente Valley County Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
80	Landscape Irrigation Efficiency Program (LIEP)	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
81	Large Landscape Irrigation Survey and Retrofit Project	Upper San Gabriel Valley Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
82	Las Virgenes Creek Bank Stabilization, Stream Restoration, Fish Migration Enhancement and Trail Connection	City of Calabasas	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
83	Live Oak Dam Inlet/Outlet Rehabilitation	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description

84	Live Oak Spreading Grounds Improvement Project	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
85	Lopez Spreading Grounds Improvement	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
86	Los Angeles River Center and Gardens Green Conference Center	Mountains Recreation and Conservation Authority	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
87	Los Angeles River Natural Park	City of Los Angeles Bureau of Sanitation/Watershed Protection Division	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
88	Los Angeles River Revitalization Master Plan 32 Mile Channel and Easement Greening	City of Los Angeles, Bureau of Engineering	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
89	Los Angeles State Historic Park Water Recycling Project	LADWP	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
90	Los Angeles-Burbank Groundwater System Interconnection	LADWP / Burbank Water and Power	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
91	Los Angeles-Glendale Groundwater System Interconnection	LADWP / Glendale Water and Power	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
92	Lower Los Angeles River Area Linear Water Storage Feasibility Study	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
93	Malibu Civic Center Area Recyled Water Delivery Project	City of Malibu	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
94	Malibu Civic Center Linear Park Phase 3	City of Malibu	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
95	Malibu Drought Preparedness Project: Graywater Reuse and Rainwater Harvesting	City of Malibu	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
96	Malibu Equestrian Center Runoff BMPs	City of Malibu	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
97	Malibu Rainwater Harvesting	City of Malibu	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
98	Malibu Road/Malibu Colony Stormwater Management	City of Malibu	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
99	Manhattan Strand 28th Street Subsurface Infiltration Trench	City of Manhattan Beach	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
100	Manhattan Wells Improvement	LADWP / Water Replenishment District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
101	Marsh Park, Phase II	Mountains Recreation and Conservation Authority	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
102	Medea Creek Restoration at Chumash Park	City of Agoura Hills	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
103	Miller Pit Spreading Basins	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description

104	MillerCoors Recycled Water Project	Upper San Gabriel Valley Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
105	Milton Street Park and Green Street project - Ballona Creek	Mountains Recreation and Conservation Authority	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
106	Mission Hills Green Belt	The River Project	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
107	Mission Wells Improvement	LADWP	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
108	North Hollywood Groundwater and Surface Water Benefits Study	Council for Watershed Health	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
109	North Hollywood Street Enhancement	City of Los Angeles	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
110	North Hollywood Transmission Corridor Easement Stormwater Capture Study	Council for Watershed Health	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
111	North Santa Monica Bay Firecamp 13 LID Retrofit	Los Angeles County Deprtment of Public Works	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
112	North Santa Monica Bay Probation Camp Miller LID Retrofit	Los Angeles County Department of Public Works	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
113	Northeast Gardena Recycled Water Line	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
114	Northeast Gardena Storm Water Quality Park, Recycled Water Line, and Landscape Makeover	Council for Watershed Health	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
115	Northeast Gardena Water and Landscape Makeover, Community Involvement Module	Council for Watershed Health	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
116	Oak Park Green Streets Urban Retrofit	County of Ventura	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
117	Oak Park Medea Creek Restoration	Mountains Restoration Trust	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
118	Ocean Friendly Garden (OFG) Program	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
119	Olive Pit Water Conservation Park	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
120	Oxford Retention Basin Multi-Use Enhancement Project	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
121	Ozone Park Runoff Treatment and ReUse Project	City of Santa Monica	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
122	Pacoima Dam Inlet/Outlet Works Rehabilitation Project	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
123	Pacoima Neighborhood Retrofit	The River Project	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description

124	Pacoima Reservoir Sediment Removal	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
125	Pacoima Spreading Grounds Improvements	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
126	Palos Verdes Peninsula Satellite Facilities Study	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
127	Palos Verdes Recycled Water Lateral	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
128	Pasadena Recycled Water Project	Pasadena Water and Power	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
129	Peck Water Conservation Improvement Project	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
130	Puddingstone Diversion Dam Inlet/Outlet Works Rehabilitation	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
131	Raw Wastewater Diversion to the City of Los Angeles	Las Virgenes Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
132	Recycled Water On-Site Retrofit Projects	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
133	Recycled Water Storage and Distribution System Expansion	Las Virgenes Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
134	Recycled Water Supply for Palos Verdes Golf Course	City of Palos Verdes Estates	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
135	Recycled Water Turnouts	Water Replenishment District of Southern California	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
136	Regional Water Supply Reliability Program Phase 1b	Puente Basin Water Agency	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
137	Residential Indoor Plumbing Retrofit Kits	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
138	Residential SMART Timer Retrofit "Plus" Program	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
139	Rio Hondo Coastal Basin Spreading Grounds - Sediment Removal from Basins	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
140	Rockhaven Well	Crescenta Valley Water District and Glendale Water and Power	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
141	SMURRF Distributed Water Reuse Project	City of Santa Monica	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
142	San Gabriel Coastal Basin Spreading Grounds Improvement Project	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
143	San Gabriel Dam Penstock Coatings and Valve Repair	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description

144	San Gabriel Valley Water Recycling Project (Phase I - Rose Hills Expansion)	Upper San Gabriel Valley Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
145	San Gabriel Valley Water Recycling Project - Membrane Bioreactor Treatment Plant	Upper San Gabriel Valley Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
146	San Jose Creek Water Reclamation Plant East Process Optimization Project	County Sanitation Districts of Los Angeles County	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
147	San Rafael Creek Restoration	Arroyo Seco Foundation	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
148	San Ramon Canyon Stormwater Flood Reduction Project	City of Rancho Palos Verdes	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
149	Santa Anita Dam Seismic Rehabilitation	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
150	Santa Fe Dam Water Conservation Pool	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
151	Santa Fe Spillway Basins	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
152	Sawpit Debris Dam Seismic Strengthening Project	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
153	Septic-To-Sewer Drinking Waterwell Protection Project	City of Los Angeles Bureau of Sanitation/Wastewater Engineering Services Division	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
154	Sepulveda Basin Sports Complex Multi-Purpose Open Space Project	City of Los Angeles, Bureau of Engineering	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
155	Sepulveda Basin Sports Complex Riparian Buffer	City of Los Angeles, Bureau of Engineering	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
156	Sheldon Pit	LADWP	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
157	Shoestring Park	Council for Watershed Health	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
158	Silver Lake Reservoir Bypass & Regulator Station	LADWP	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
159	Six Basins and Puente Basin Integrated Water Supply Project	Puente Basin Water Agency	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
160	South Coast Botanic Gardens	Los Angeles County Department of Public Works	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
161	South El Monte Recycled Water Expansion Project Package 1	Upper San Gabriel Valley Municipal Water District & San Gabriel Valley Water Company	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
162	South El Monte Recycled Water Expansion Project	Upper San Gabriel Valley Municipal Water District & San Gabriel Valley Water Company	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description

163	South Los Angeles County Groundwater Pipline Project	Water Replenishment District of Southern California	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
164	South Park Subsurface Infiltration Gallery	City of Hermosa Beach	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
165	Southeast Gardena Recycled Water Line	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
166	Stormwater Diversion to Walnut Avenue Sump	City of Torrance	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
167	Sun Valley Watershed Rory M. Shaw Wetlands Park Project (a.k.a. Strathern Wetlands Park)	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
168	Taylor Yard River Park Parcel G2	City of Los Angeles, Bureau of Engineering	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
169	Terminal Island WRP Advanced Water Purification Facility and Distribution System Expansion Project	LADWP	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
170	Terminal Island WRP Advanced Water Purification Facility and Distribution System Expansion	LADWP	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
171	Thousand Oaks Boulevard and Westlake Elementary Recycled Water System Extension	Las Virgenes Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
172	Topanga Connection Acquisition	Mountains Restoration Trust	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
173	Transfer Station Cover Structure and Site Improvements	City of Inglewood	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
174	Triunfo Community Park and Evanstar Park Recycled Water Extension	Las Virgenes Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
175	Trunk Sewer Rehabilitation Projects	Las Virgenes Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
176	Turf's Up Water Use Efficiency Program	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
177	Valley Generating Station Stormwater Recharge Project	LADWP	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
178	Van Ness and Slauson Infiltration Best Management Project	City of Los Angeles Bureau of Sanitation Watershed Protection Division	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
179	Verdugo Hills Stormwater Project	City of Los Angeles, Bureau of Sanitation/Watershed Protection Division	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
180	Vermont Avenue Storm Water Capture and Green Street Beautification Project	City of Los Angeles, Bureau of Sanitation/Watershed Protection Division	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description

181	Vermont Median Stormwater Park	Council for Watershed Health	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
182	Victoria Street CSUDH Water Reuse Concept Proposal	City of Carson	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
183	WRD Eco Gardener Program	Water Replenishment District of Southern California	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
184	Walnut Creek Spreading Basin Improvements	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
185	Water Budget Based Rate Implementation	Las Virgenes Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
186	Water Star Schools Pilot Program	West Basin Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
187	Well 15	San Gabriel County Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
188	Well 7	City of Inglewood	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
189	Well No. 2 Rehabilitation	City of Inglewood	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
190	West Coast Basin Barrier Project	Los Angeles County Flood Control District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
191	Westlake Filtration Plant Enhancement & Backbone Improvements	Las Virgenes Municipal Water District	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
192	Westward Beach Road Bioinfiltration Project	City of Malibu	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
193	Westwood Neighborhood Greenway Project	City of Los Angeles Bureau of Sanitation Watershed Protection Division	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
194	Whiting St. and El Segundo Blvd. Dry Weather Diversion Structure	City of El Segundo	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description
195	Whitnall HWY Powerline Easement Stormwater Capture Project	LADWP	Please refer to the Greater Los Angeles County Integrated Regional Water Management OPTI database for a project description

2195 Sherwood Road
San Marino, CA 91108
October 28, 2014

Mr. Gregg BeGell, P.E.
County of Los Angeles Department of Public Works
Project Management Division II
900 South Fremont, 5th Floor
Alhambra, CA 91803

Dear Mr. BeGell,

The purpose of this letter is to register my support for the restoration of Baldwin Lake as part of the Enhanced Watershed Management Plan (EWMP) for the Rio Hondo Watershed. The lake has experienced significant deterioration in recent decades as a consequence of surface run-off and its very future is very much at risk. Establishing the restoration of Baldwin Lake as a priority project as part of the EWMP will ensure its status as an important ecological and historic asset for generations to come.

Many thanks for attention to this matter.

Very truly yours,

George L. Ball

Laura Rocha

From: Begell, Gregg - Consultant <gbegell@dpw.lacounty.gov>
Sent: Tuesday, October 14, 2014 4:06 PM
To: Crumpacker, Andrea; David Pohl
Subject: FW: Restoration of Baldwin Lake

Comment for record

Gregg BeGell P E
Project Manager
Project Management Division II

From: Jane Florentinus [mailto:java5@att.net]
Sent: Tuesday, October 14, 2014 1:23 PM
To: Begell, Gregg - Consultant
Subject: Restoration of Baldwin Lake

Hello Mr. BeGell,

I am a volunteer and member of the Arboretum located in Arcadia and would like to express my concern for the poor condition of the lake. As a volunteer docent I provide guided walks through the gardens as well as the lake perimeter. Visitors are dismayed and saddened to see the decline of such a great and wonderful treasure in the midst of our urban lifestyle. To have open space in our crowded communities is truly a rarity and must be preserved for future generations to appreciate. Please take my request for restoring the lake to heart.

Thank you for reading my message.

Jane Florentinus
7140 Hidden Pine Drive
San Gabriel, CA 91775
Copy of email sent to G. Osmena

Paige Anderson

To: Tom Barnes
Subject: RE: Enhanced Watershed Management Plan

From: Jane Williams [mailto:janeann64@yahoo.com]
Sent: Wednesday, October 29, 2014 2:16 PM
To: Begell, Gregg - Consultant; Osmena, Genevieve
Subject: Enhanced Watershed Management Plan

As a volunteer at the L.A. County Arboretum, I would like to voice my support for the Enhanced Watershed Management Plan (EWMP) for the Rio Hondo Watershed, in which the Arboretum resides.

Every time I set foot in the Arboretum and look around me I see what can only be described as a treasure that belongs to the people of Los Angeles County. The condition of Baldwin Lake, the centerpiece around which the Arboretum exists is deplorable. It is in desperate need of restoration. Please do all that you can to see that this plan is instituted and that, through it, funding may be found to preserve Baldwin Lake.

Laura Rocha

From: Begell, Gregg - Consultant <gbegell@dpw.lacounty.gov>
Sent: Monday, September 29, 2014 4:41 PM
To: Crumpacker, Andrea; Tom Barnes; David Pohl
Subject: FW: Comments LACFCD SCH 2014081106 NOP Enhanced Watershed Management Programs due 9.29.2014

Here are a few good comments.

Are you filing all the comments into a file or folder such that the County can view all the comments in one place?

Gregg BeGell P E
Project Manager
Project Management Division II

From: Joyce Dillard [mailto:dillardjoyce@yahoo.com]
Sent: Monday, September 29, 2014 4:30 PM
To: Begell, Gregg - Consultant
Subject: Comments LACFCD SCH 2014081106 NOP Enhanced Watershed Management Programs due 9.29.2014

The Project Description is listed on the State Clearinghouse site as:

The development of the EWMP will involve the evaluation and selection of multiple watershed control measures or best management practices (BMP) types including non-structural and distributed, centralized and regional structural BMPs. These BMPs will be implemented to meet compliance goals and strategies under the 2014 MS4 Permit. Structural BMPs involve the construction of a physical control measure to alter the hydrology and/or water quality of incoming stormwater or non-stormwater. The three major functions for structural BMPs are infiltration, water quality treatment, and storage. These are three categories of structural BMPs, defined by the runoff area treated by the BMP and the required retention volume in accordance with the Permit.

Comments:

Watershed control measures seems to be the emphasis, but that term is not defined. It seems to exclude Watershed Protection Management Measure in areas applicable to the Coastal Zone Act Reauthorization Amendments which recognizes the impact of land-use activities on estuaries, beaches, marine resources and the ocean. *Economically feasible measures* and *greatest degree of pollutant reduction achievable* are terms from that Act.

All receiving waters should be identified as to type and federal jurisdiction.

The project only allows a build environment in a watershed that should have natural lands, ecosystems and normal watershed characteristics including ambient water quality standards and the Southern California Bight.

Antidegradation procedures should be addressed.

Alternatives should be presented for non-structural or structural projects.

Surrounding land uses and settings should be addressed as should settings such as air space in relationship to bird migratory patterns. Ambient air quality should be included.

Other public agencies should be included. US Army Corps of Engineers plays a role in navigable waters as does Caltrans in its responsibility for NPDES compliance.

Private parties, such as Lauren Bon (Water Rights Draft Permit A032212) should be included.

Baselines should be presented.

There should be consistency including applications of the various General Plan and its Elements across jurisdictions. Infrastructure should be addressed including but not limited to age, condition and operations and maintenance.

Since federal regulations are enforced involving Clean Water Act Navigable Waters, we question why there is no NEPA document preparation.

Joyce Dillard
P.O. Box 31377
Los Angeles, CA 90031

Kenneth D. Hill. Ph.D., P.E.
1994 Meadowbrook Rd.
Altadena, CA 91001-3404
(626) 797-2089

October 27, 2014

Mr. Gregg BeGell, P.E.
County of Los Angeles Department of Public Works
Project Management Division II
900 South Fremont, 5th Floor
Alhambra, CA 91803

Subject: Baldwin Lake Restoration
Los Angeles County Arboretum and Botanic Garden

Dear Mr. BeGell:

As president of the L.A. County Arboretum Foundation and as a concerned citizen, I encourage you to restore Baldwin Lake at the Arboretum. I am sure you are aware that the lake has environmental significance to Los Angeles County including impact on water conservation and reclamation, regional ecology, educational opportunity, and historical importance.

The restoration of Baldwin Lake, including improvements to its function as an urban runoff collection basin, should be considered as a high-priority project within the Rio Hondo Enhanced Watershed Management Plan.

Please note the following:

1. Baldwin Lake, with a current capacity of just under four million gallons, if returned to its original depth, would provide over twelve million gallons of storage capacity. With modification, it could also serve as a significant infiltration basin for aquifer recharge.

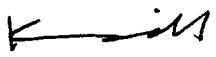
2. Tule Pond to the north, a canal roughly 600ft. in length, is the point of entry for the urban watershed, feeding directly into Baldwin Lake. Its size, shape and location offer great potential for water quality enhancement through modification as a bioswale.

3. The Lake is a key educational, scenic, wildlife, and historic resource serving over 330,000 visitors per year, including over 16,000 elementary school students on field trips. The project would provide an unrivaled opportunity to educate a broad public about regional water management, home and community water conservation, and the role of the Raymond Basin and other key water resources that sustain us.

4. The Los Angeles Arboretum Foundation, the County's non-profit partner in operating the Arboretum, stands ready to help leverage public dollars to realize the site's unique educational potential. **At our recent strategic planning meeting (October 25th) the restoration of Baldwin Lake was the top priority for the foundation over the next year.**

In sum, Baldwin Lake offers the ideal project to both enhance watershed function and serve the public with remarkable educational, ecological, and scenic benefits. It is an exceptionally strong candidate for inclusion in the Rio Hondo Enhanced Watershed Management Plan.

Sincerely,



Kenneth D. Hill, Ph.D., P.E.
President, L.A. County Arboretum Foundation

Gmail

Marsha Perez <marshaaperez@gmail.co

Baldwin Lake

2 messages

Marsha Perez <marshaaperez@gmail.com> Thu, Oct 23, 2014 at 4:45
To: gbegell@dwp.lacounty.gov

Dear Mr. BeGell,

I am a frequent visitor to our LA County Arboretum. Here I can find beauty, contentment and sollice for my busy lifestyle.

Baldwin Lake is one of our families favorite visiting areas. Here we find the solitude and the different forms of wildfowl very enjoyable.

Lately we find that our lake is becoming a disaster! The water is murkey, the banks are crumbling and it has a swamp like look in certain areas.

On behalf of my family and many friends and visitors I implore you to take advantage of the opportunity now available to restore the health and beauty of our beloved lake.

Thank you for your consideration.
Sincerely.
Marsha Perez

Marsha Perez

MWD
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Executive Office

September 24, 2014 **Via Mail**

Mr. Gregg BeGell
Project Management Division II
Los Angeles County Flood Control District
900 South Fremont Avenue, 5th Floor
Alhambra, CA 91803

Dear Mr. BeGell:

Notice of Preparation for the Draft Program
Environmental Impact Report for the Enhanced Watershed Management Programs

The Metropolitan Water District of Southern California (Metropolitan) has reviewed the Notice of Preparation of a Draft Program Environmental Impact Report for Enhanced Watershed Management Programs (EWMPs) in Los Angeles County, California. The Los Angeles County Flood Control District (LACFCD) is the Lead Agency. An EWMP is one regulatory compliance mechanism for stormwater management under the Los Angeles County Municipal Separate Storm Sewer System (MS4) Permit adopted in 2012 (hereafter referred to as 2012 LA County MS4 Permit). The LACFCD proposes the development of 12 separate EWMPs in their respective watershed groups. The potential benefits from the EWMPs include the following: (1) improved water quality; (2) reduction in the impairment of water bodies for Designated Beneficial Uses; (3) promotion of water conservation and supply; (4) enhanced recreational opportunities; (4) support for public education opportunities; (5) improved local aesthetics; and (6) management of flood risks. This letter contains Metropolitan's comments to the proposed project as a potentially affected agency.

Metropolitan is a public agency and regional water wholesaler. It is comprised of 26 member public agencies serving approximately 18.4 million people in portions of six counties in Southern California, including Los Angeles County. Metropolitan's mission is to provide its 5,200-square-mile service area with adequate and reliable supplies of high-quality water to meet present and future needs in an environmentally and economically responsible way. Metropolitan owns and operates numerous facilities within Los Angeles County including pipelines, a water treatment plant, power plants, dams, reservoirs, and other infrastructure associated with our water conveyance and distribution system.

The proposed project may impact Metropolitan's ability to dewater its pipelines. As part of a proactive maintenance and refurbishment program, Metropolitan periodically dewaters its treated and raw water pipelines prior to inspection, maintenance, or repair activities. Such periodic inspections and repairs are essential to prevent pipe failures and subsequent damage from high-pressure water releases. These water discharges are short-term in nature and are acknowledged

by the LA County Regional Water Quality Control Board as having a *de minimus,* or low-threat, impact to the environment and aquatic life. As such, these discharges are categorized as "Conditionally Exempt Essential Non-Storm Water Discharges" under the 2012 LA County MS4 Permit.

Metropolitan requests that LACFCD and its co-permitees continue to allow for periodic discharges by potable water systems into the MS4 under the proposed EWMPs. These "Conditionally Exempt Essential Non-Storm Water Discharges" are specifically called out as permissible under the 2012 LA County MS4 Permit. Per the conditions set forth in the 2012 LA County MS4 Permit, Metropolitan will continue to follow industry-accepted best management practices (BMPs) for its potable water system discharges. BMPs include, but are not limited to, the following: (a) advanced notification of LACFCD 72 hours prior to all planned discharges greater than 100,000 gallons and as soon as possible after an unplanned discharge greater than 100,000 gallons; (b) dechlorination; (c) monitoring for pollutants of concern; and (d) recordkeeping (e.g., date, time, and location of discharge, discharge pathway, receiving water, total number of gallons discharged, BMPs used, etc.).

Based on a review of the proposed project boundaries, the proposed project has potential to impact Metropolitan facilities. Metropolitan must be allowed to maintain its rights-of-way and requires unobstructed access to its facilities in order to maintain and repair its system. Any future design plans associated with this project should be submitted to the attention of Metropolitan's Substructures Team. Approval of the project should be contingent on Metropolitan's approval of design plans for portions of the proposed project that could impact its facilities.

Detailed prints of drawings of Metropolitan's pipelines and rights-of-way may be obtained by calling Metropolitan's Substructures Information Line at (213) 217-6564. To assist the applicant in preparing plans that are compatible with Metropolitan's facilities and easements, we have enclosed a copy of the "Guidelines for Developments in the Area of Facilities, Fee Properties, and/or Easement of The Metropolitan Water District of Southern California." Please note that all submitted designs or plans must clearly identify Metropolitan's facilities and rights-of-way. We appreciate the opportunity to provide input to your planning process and we look forward to receiving future documentation and plans for this project. For further assistance, please contact Ms. Michelle Morrison at (213) 217-7906.

Very truly yours,

for Deirdre West
Manager, Environmental Planning Team

MM:rdl
J:\Environmental Planning&Compliance\COMPLETED JOBS\September2014\EPT Job No. 20140944MIS

Enclosures: Planning Guidelines and Map of Metropolitan Facilities in Project Vicinity

Guidelines for Developments in the Area of Facilities, Fee Properties, and/or Easements of The Metropolitan Water District of Southern California

1. Introduction

a. The following general guidelines should be followed for the design of proposed facilities and developments in the area of Metropolitan's facilities, fee properties, and/or easements.

b. We require that 3 copies of your tentative and final record maps, grading, paving, street improvement, landscape, storm drain, and utility plans be submitted for our review and written approval as they pertain to Metropolitan's facilities, fee properties and/or easements, prior to the commencement of any construction work.

2. Plans, Parcel and Tract Maps

The following are Metropolitan's requirements for the identification of its facilities, fee properties, and/or easements on your plans, parcel maps and tract maps:

a. Metropolitan's fee properties and/or easements and its pipelines and other facilities must be fully shown and identified as Metropolitan's on all applicable plans.

b. Metropolitan's fee properties and/or easements must be shown and identified as Metropolitan's with the official recording data on all applicable parcel and tract maps.

c. Metropolitan's fee properties and/or easements and existing survey monuments must be dimensionally tied to the parcel or tract boundaries.

d. Metropolitan's records of surveys must be referenced on the parcel and tract maps.

3. Maintenance of Access Along Metropolitan's Rights-of-Way

a. Proposed cut or fill slopes exceeding 10 percent are normally not allowed within Metropolitan's fee properties or easements. This is required to facilitate the use of construction and maintenance equipment, and provide access to its aboveground and belowground facilities.

b. We require that 16-foot-wide commercial-type driveway approaches be constructed on both sides of all streets crossing Metropolitan's rights-of-way. Openings are required in any median island. Access ramps, if necessary, must be at least 16-feet-wide. Grades of ramps are normally not allowed to exceed 10 percent. If the slope of an access ramp must exceed 10 percent due to the topography, the ramp must be paved. We require a 40-foot-long level area on the driveway approach to access ramps where the ramp meets the street. At Metropolitan's fee properties, we may require fences and gates.

c. The terms of Metropolitan's permanent easement deeds normally preclude the building or maintenance of structures of any nature or kind within its easements, to ensure safety and avoid interference with operation and maintenance of Metropolitan's pipelines or other facilities. Metropolitan must have vehicular access along the easements at all times for inspection, patrolling, and for maintenance of the pipelines and other facilities on a routine basis. We require a 20-foot-wide clear zone around all above-ground facilities for this routine access. This clear zone should slope away from our facility on a grade not to exceed 2 percent. We must also have access along the easements with construction equipment. An example of this is shown on Figure 1.

d. The footings of any proposed buildings adjacent to Metropolitan's fee properties and/or easements must not encroach into the fee property or easement or impose additional loading on Metropolitan's pipelines or other facilities therein. A typical situation is shown on Figure 2. Prints of the detail plans of the footings for any building or structure adjacent to the fee property or easement must be submitted for our review and written approval as they pertain to the pipeline or other facilities therein. Also, roof eaves of buildings adjacent to the easement or fee property must not overhang into the fee property or easement area.

e. Metropolitan's pipelines and other facilities, e.g. structures, manholes, equipment, survey monuments, etc. within its fee properties and/or easements must be protected from damage by the easement holder on Metropolitan's property or the property owner where Metropolitan has an easement, at no expense to Metropolitan. If the facility is a cathodic protection station it shall be located prior to any grading or excavation. The exact location, description and way of protection shall be shown on the related plans for the easement area.

4. Easements on Metropolitan's Property

a. We encourage the use of Metropolitan's fee rights-of-way by governmental agencies for public street and utility purposes, provided that such use does not interfere with Metropolitan's use of the property, the entire width of the property is accepted into the agency's public street system and fair market value is paid for such use of the right-of-way.

b. Please contact the Director of Metropolitan's Right of Way and Land Division, telephone (213) 250-6302, concerning easements for landscaping, street, storm drain, sewer, water or other public facilities proposed within Metropolitan's fee properties. A map and legal description of the requested easements must be submitted. Also, written evidence must be submitted that shows the city or county will accept the easement for the specific purposes into its public system. The grant of the easement will be subject to Metropolitan's rights to use its land for water pipelines and related purposes to the same extent as if such grant had not been made. There will be a charge for the easement. Please note that, if entry is required on the property prior to issuance of the easement, an entry permit must be obtained. There will also be a charge for the entry permit.

5. Landscaping

Metropolitan's landscape guidelines for its fee properties and/or easements are as follows:

a. A green belt may be allowed within Metropolitan's fee property or easement.

b. All landscape plans shall show the location and size of Metropolitan's fee property and/or easement and the location and size of Metropolitan's pipeline or other facilities therein.

c. Absolutely no trees will be allowed within 15 feet of the centerline of Metropolitan's existing or future pipelines and facilities.

d. Deep-rooted trees are prohibited within Metropolitan's fee properties and/or easements. Shallow-rooted trees are the only trees allowed. The shallow-rooted trees will not be permitted any closer than 15 feet from the centerline of the pipeline, and such trees shall not be taller than 25 feet with a root spread no greater than 20 feet in diameter at maturity. Shrubs, bushes, vines, and ground cover are permitted, but larger shrubs and bushes should not be planted directly over our pipeline. Turf is acceptable. We require submittal of landscape plans for Metropolitan's prior review and written approval. (See Figure 3).

e. The landscape plans must contain provisions for Metropolitan's vehicular access at all times along its rights-of-way to its pipelines or facilities therein. Gates capable of accepting Metropolitan's locks are required in any fences across its rights-of-way. Also, any walks or drainage facilities across its access route must be constructed to AASHTO H-20 loading standards.

f. Rights to landscape any of Metropolitan's fee properties must be acquired from its Right of Way and Land Division. Appropriate entry permits must be obtained prior to any entry on its property. There will be a charge for any entry permit or easements required.

6. Fencing

Metropolitan requires that perimeter fencing of its fee properties and facilities be constructed of universal chain link, 6 feet in height and topped with 3 strands of barbed wire angled upward and outward at a 45 degree angle or an approved equal for a total fence height of 7 feet. Suitable substitute fencing may be considered by Metropolitan. (Please see Figure 5 for details).

7. Utilities in Metropolitan's Fee Properties and/or Easements or Adjacent to Its Pipeline in Public Streets

Metropolitan's policy for the alinement of utilities permitted within its fee properties and/or easements and street rights-of-way is as follows:

a. Permanent structures, including catch basins, manholes, power poles, telephone riser boxes, etc., shall not be located within its fee properties and/or easements.

b. We request that permanent utility structures within public streets, in which Metropolitan's facilities are constructed under the Metropolitan Water District Act, be placed as far from our pipeline as possible, but not closer than 5 feet from the outside of our pipeline.

c. The installation of utilities over or under Metropolitan's pipeline(s) must be in accordance with the requirements shown on the enclosed prints of Drawings Nos. C-11632 and C-9547. Whenever possible we request a minimum of one foot clearance between Metropolitan's pipe and your facility. Temporary support of Metropolitan's pipe may also be required at undercrossings of its pipe in an open trench. The temporary support plans must be reviewed and approved by Metropolitan.

d. Lateral utility crossings of Metropolitan's pipelines must be as perpendicular to its pipeline alinement as practical. Prior to any excavation our pipeline shall be located manually and any excavation within two feet of our pipeline must be done by hand. This shall be noted on the appropriate drawings.

e. Utilities constructed longitudinally within Metropolitan's rights-of-way must be located outside the theoretical trench prism for uncovering its pipeline and must be located parallel to and as close to its rights-of-way lines as practical.

f. When piping is jacked or installed in jacked casing or tunnel under Metropolitan's pipe, there must be at least two feet of vertical clearance between the bottom of Metropolitan's pipe and the top of the jacked pipe, jacked casing or tunnel. We also require that detail drawings of the shoring for the jacking or tunneling pits be submitted for our review and approval. Provisions must be made to grout any voids around the exterior of the jacked pipe, jacked casing or tunnel. If the piping is installed in a jacked casing or tunnel the annular space between the piping and the jacked casing or tunnel must be filled with grout.

g. Overhead electrical and telephone line requirements:

1) Conductor clearances are to conform to the California State Public Utilities Commission, General Order 95, for Overhead Electrical Line Construction or at a greater clearance if required by Metropolitan. Under no circumstances shall clearance be less than 35 feet.

2) A marker must be attached to the power pole showing the ground clearance and line voltage, to help prevent damage to your facilities during maintenance or other work being done in the area.

3) Line clearance over Metropolitan's fee properties and/or easements shall be shown on the drawing to indicate the lowest point of the line under the most adverse conditions including consideration of sag, wind load, temperature change, and support type. We require that overhead lines be located at least 30 feet laterally away from all above-ground structures on the pipelines.

4) When underground electrical conduits, 120 volts or greater, are installed within Metropolitan's fee property and/or easement, the conduits must be incased in a minimum of three inches of red concrete. Where possible, above ground warning signs must also be placed at the right-of-way lines where the conduits enter and exit the right-of-way.

h. The construction of sewerlines in Metropolitan's fee properties and/or easements must conform to the California Department of Health Services Criteria for the Separation of Water Mains and Sanitary Services and the local City or County Health Code Ordinance as it relates to installation of sewers in the vicinity of pressure waterlines. The construction of sewerlines should also conform to these standards in street rights-of- way.

i. Cross sections shall be provided for all pipeline crossings showing Metropolitan's fee property and/or easement limits and the location of our pipeline(s). The exact locations of the crossing pipelines and their elevations shall be marked on as-built drawings for our information.

j. Potholing of Metropolitan's pipeline is required if the vertical clearance between a utility and Metropolitan's pipeline is indicated on the plan to be one foot or less. If the indicated clearance is between one and two feet, potholing is suggested. Metropolitan will provide a representative to assists others in locating and identifying its pipeline. Two-working days notice is requested.

k. Adequate shoring and bracing is required for the full depth of the trench when the excavation encroaches within the zone shown on Figure 4.

l. The location of utilities within Metropolitan's fee property and/or easement shall be plainly marked to help prevent damage during maintenance or other work done in the area. Detectable tape over buried utilities should be placed a minimum of 12 inches above the utility and shall conform to the following requirements:

1) Water pipeline: A two-inch blue warning tape shall be imprinted with:

"CAUTION BURIED WATER PIPELINE"

2) Gas, oil, or chemical pipeline: A two-inch yellow warning tape shall be imprinted with:

"CAUTION BURIED _____ PIPELINE"

3) Sewer or storm drain pipeline: A two-inch green warning tape shall be imprinted with:

"CAUTION BURIED _____ PIPELINE"

4) Electric, street lighting, or traffic signals conduit: A two-inch red warning tape shall be imprinted with:

"CAUTION BURIED _____ CONDUIT"

5) Telephone, or television conduit: A two-inch orange warning tape shall be imprinted with:

"CAUTION BURIED _____ CONDUIT"

m. Cathodic Protection requirements:

1) If there is a cathodic protection station for Metropolitan's pipeline in the area of the proposed work, it shall be located prior to any grading or excavation. The exact location, description and manner of protection shall be shown on all applicable plans. Please contact Metropolitan's Corrosion Engineering Section, located at Metropolitan's F. E. Weymouth Softening and Filtration Plant, 700 North Moreno Avenue, La Verne, California 91750, telephone (714) 593-7474, for the locations of Metropolitan's cathodic protection stations.

2) If an induced-current cathodic protection system is to be installed on any pipeline crossing Metropolitan's pipeline, please contact Mr. Wayne E. Risner at (714) 593-7474 or (213) 250-5085. He will review the proposed system and determine if any conflicts will arise with the existing cathodic protection systems installed by Metropolitan.

3) Within Metropolitan's rights-of-way, pipelines and carrier pipes (casings) shall be coated with an approved protective coating to conform to Metropolitan's requirements, and shall be maintained in a neat and orderly condition as directed by Metropolitan. The application and monitoring of cathodic protection on the pipeline and casing shall conform to Title 49 of the Code of Federal Regulations, Part 195.

4) If a steel carrier pipe (casing) is used:

(a) Cathodic protection shall be provided by use of a sacrificial magnesium anode (a sketch showing the cathodic protection details can be provided for the designers information).

(b) The steel carrier pipe shall be protected with a coal tar enamel coating inside and out in accordance with AWWA C203 specification.

n. All trenches shall be excavated to comply with the CAL/OSHA Construction Safety Orders, Article 6, beginning with Sections 1539 through 1547. Trench backfill shall be placed in 8-inch lifts and shall be compacted to 95 percent relative compaction (ASTM D698) across roadways and through protective dikes. Trench backfill elsewhere will be compacted to 90 percent relative compaction (ASTM D698).

o. Control cables connected with the operation of Metropolitan's system are buried within streets, its fee properties and/or easements. The locations and elevations of these cables shall be shown on the drawings. The drawings shall note that prior to any excavation in the area, the control cables shall be located and measures shall be taken by the contractor to protect the cables in place.

p. Metropolitan is a member of Underground Service Alert (USA). The contractor (excavator) shall contact USA at 1-800-422-4133 (Southern California) at least 48 hours prior to starting any excavation work. The contractor will be liable for any damage to Metropolitan's facilities as a result of the construction.

8. Paramount Right

Facilities constructed within Metropolitan's fee properties and/or easements shall be subject to the paramount right of Metropolitan to use its fee properties and/or easements for the purpose for which they were acquired. If at any time Metropolitan or its assigns should, in the exercise of their rights, find it necessary to remove any of the facilities from the fee properties and/or easements, such removal and replacement shall be at the expense of the owner of the facility.

9. Modification of Metropolitan's Facilities

When a manhole or other of Metropolitan's facilities must be modified to accommodate your construction or reconstruction, Metropolitan will modify the facilities with its forces. This should be noted on the construction plans. The estimated cost to perform this modification will be given to you and we will require a deposit for this amount before the work is performed. Once the deposit is received, we will schedule the work. Our forces will coordinate the work with your contractor. Our final billing will be based on actual cost incurred, and will include materials, construction, engineering plan review, inspection, and administrative overhead charges calculated in accordance with Metropolitan's standard accounting practices. If the cost is less than the deposit, a refund will be made; however, if the cost exceeds the deposit, an invoice will be forwarded for payment of the additional amount.

10. Drainage

a. Residential or commercial development typically increases and concentrates the peak storm water runoff as well as the total yearly storm runoff from an area, thereby increasing the requirements for storm drain facilities downstream of the development. Also, throughout the year water from landscape irrigation, car washing, and other outdoor domestic water uses flows into the storm drainage system resulting in weed abatement, insect infestation, obstructed access and other problems. Therefore, it is Metropolitan's usual practice not to approve plans that show discharge of drainage from developments onto its fee properties and/or easements.

b. If water must be carried across or discharged onto Metropolitan's fee properties and/or easements, Metropolitan will insist that plans for development provide that it be carried by closed conduit or lined open channel approved in writing by Metropolitan. Also the drainage facilities must be maintained by others, e.g., city, county, homeowners association, etc. If the development proposes changes to existing drainage features, then the developer shall make provisions to provide for replacement and these changes must be approved by Metropolitan in writing.

11. Construction Coordination

During construction, Metropolitan's field representative will make periodic inspections. We request that a stipulation be added to the plans or specifications for notification of Mr. _____ of Metropolitan's Operations Services Branch, telephone (213) 250-____, at least two working days prior to any work in the vicinity of our facilities.

12. Pipeline Loading Restrictions

a. Metropolitan's pipelines and conduits vary in structural strength, and some are not adequate for AASHTO H-20 loading. Therefore, specific loads over the specific sections of pipe or conduit must be reviewed and approved by Metropolitan. However, Metropolitan's pipelines are typically adequate for AASHTO H-20 loading provided that the cover over the pipeline is not less than four feet or the cover is not substantially increased. If the temporary cover over the pipeline during construction is between three and four feet, equipment must restricted to that which

imposes loads no greater than AASHTO H-10. If the cover is between two and three feet, equipment must be restricted to that of a Caterpillar D-4 tract-type tractor. If the cover is less than two feet, only hand equipment may be used. Also, if the contractor plans to use any equipment over Metropolitan's pipeline which will impose loads greater than AASHTO H-20, it will be necessary to submit the specifications of such equipment for our review and approval at least one week prior to its use. More restrictive requirements may apply to the loading guideline over the San Diego Pipelines 1 and 2, portions of the Orange County Feeder, and the Colorado River Aqueduct. Please contact us for loading restrictions on all of Metropolitan's pipelines and conduits.

b. The existing cover over the pipeline shall be maintained unless Metropolitan determines that proposed changes do not pose a hazard to the integrity of the pipeline or an impediment to its maintenance.

13. Blasting

a. At least 20 days prior to the start of any drilling for rock excavation blasting, or any blasting, in the vicinity of Metropolitan's facilities, a two-part preliminary conceptual plan shall be submitted to Metropolitan as follows:

b. Part 1 of the conceptual plan shall include a complete summary of proposed transportation, handling, storage, and use of explosions.

c. Part 2 shall include the proposed general concept for blasting, including controlled blasting techniques and controls of noise, fly rock, airblast, and ground vibration.

14. CEQA Requirements

a. When Environmental Documents Have Not Been Prepared

1) Regulations implementing the California Environmental Quality Act (CEQA) require that Metropolitan have an opportunity to consult with the agency or consultants preparing any environmental documentation. We are required to review and consider the environmental effects of the project as shown in the Negative Declaration or Environmental Impact Report (EIR) prepared for your project before committing Metropolitan to approve your request.

2) In order to ensure compliance with the regulations implementing CEQA where Metropolitan is not the Lead Agency, the following minimum procedures to ensure compliance with the Act have been established:

a) Metropolitan shall be timely advised of any determination that a Categorical Exemption applies to the project. The Lead Agency is to advise Metropolitan that it and other agencies participating in the project have complied with the requirements of CEQA prior to Metropolitan's participation.

b) Metropolitan is to be consulted during the preparation of the Negative Declaration or EIR.

c) Metropolitan is to review and submit any necessary comments on the Negative Declaration or draft EIR.

d) Metropolitan is to be indemnified for any costs or liability arising out of any violation of any laws or regulations including but not limited to the California Environmental Quality Act and its implementing regulations.

b. <u>When Environmental Documents Have Been Prepared</u>

If environmental documents have been prepared for your project, please furnish us a copy for our review and files in a timely manner so that we may have sufficient time to review and comment. The following steps must also be accomplished:

1) The Lead Agency is to advise Metropolitan that it and other agencies participating in the project have complied with the requirements of CEQA prior to Metropolitan's participation.

2) You must agree to indemnify Metropolitan, its officers, engineers, and agents for any costs or liability arising out of any violation of any laws or regulations including but not limited to the California Environmental Quality Act and its implementing regulations.

15. <u>Metropolitan's Plan-Review Cost</u>

a. An engineering review of your proposed facilities and developments and the preparation of a letter response

giving Metropolitan's comments, requirements and/or approval that will require 8 man-hours or less of effort is typically performed at no cost to the developer, unless a facility must be modified where Metropolitan has superior rights. If an engineering review and letter response requires more than 8 man-hours of effort by Metropolitan to determine if the proposed facility or development is compatible with its facilities, or if modifications to Metropolitan's manhole(s) or other facilities will be required, then all of Metropolitan's costs associated with the project must be paid by the developer, unless the developer has superior rights.

b. A deposit of funds will be required from the developer before Metropolitan can begin its detailed engineering plan review that will exceed 8 hours. The amount of the required deposit will be determined after a cursory review of the plans for the proposed development.

c. Metropolitan's final billing will be based on actual cost incurred, and will include engineering plan review, inspection, materials, construction, and administrative overhead charges calculated in accordance with Metropolitan's standard accounting practices. If the cost is less than the deposit, a refund will be made; however, if the cost exceeds the deposit, an invoice will be forwarded for payment of the additional amount. Additional deposits may be required if the cost of Metropolitan's review exceeds the amount of the initial deposit.

16. Caution

We advise you that Metropolitan's plan reviews and responses are based upon information available to Metropolitan which was prepared by or on behalf of Metropolitan for general record purposes only. Such information may not be sufficiently detailed or accurate for your purposes. No warranty of any kind, either express or implied, is attached to the information therein conveyed as to its accuracy, and no inference should be drawn from Metropolitan's failure to comment on any aspect of your project. You are therefore cautioned to make such surveys and other field investigations as you may deem prudent to assure yourself that any plans for your project are correct.

17. Additional Information

Should you require additional information, please contact:

Civil Engineering Substructures Section
Metropolitan Water District
of Southern California
P.O. Box 54153
Los Angeles, California 90054-0153
(213) 217-6000

JEH/MRW/lk

Rev. January 22, 1989

Encl.

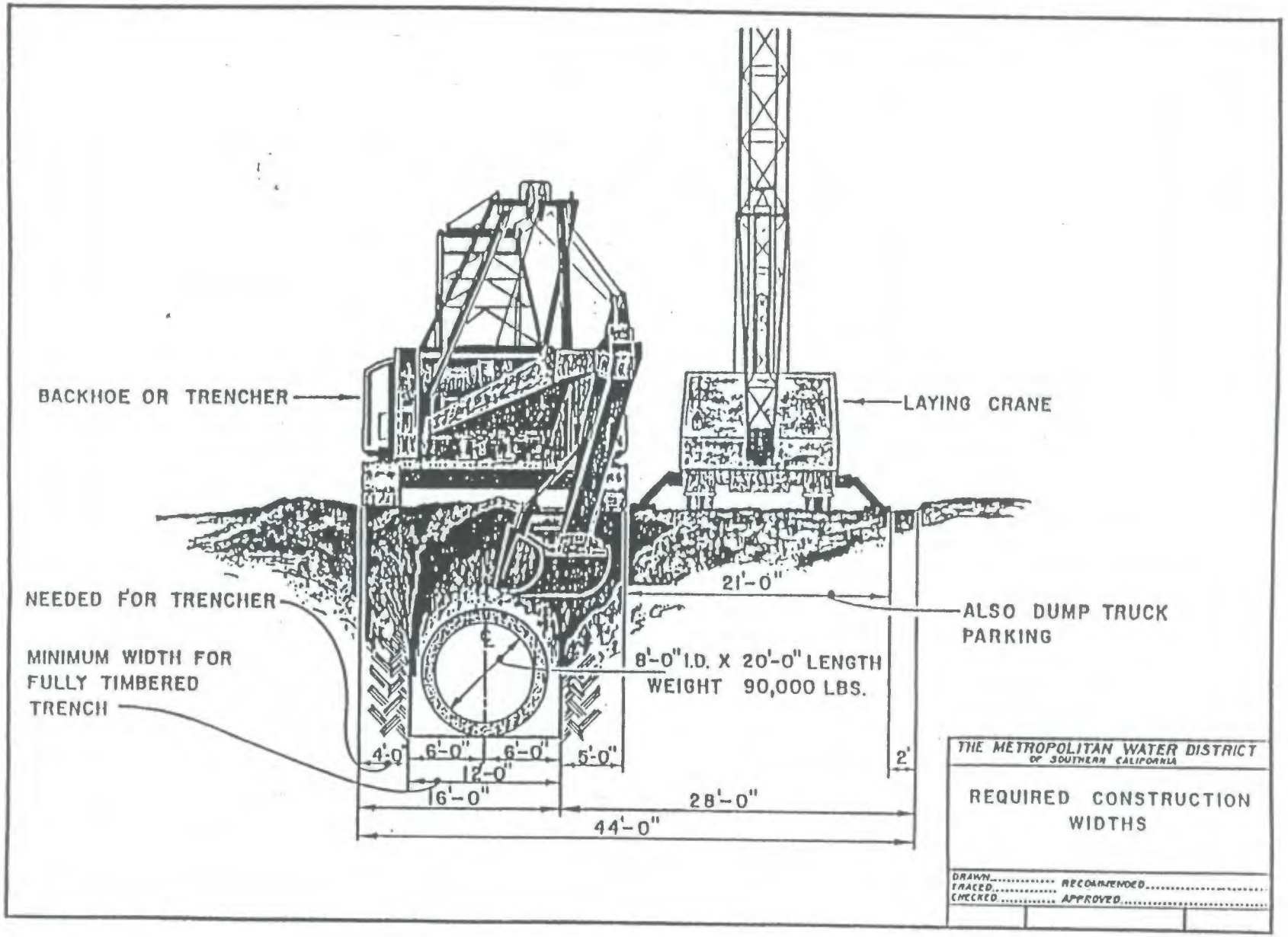
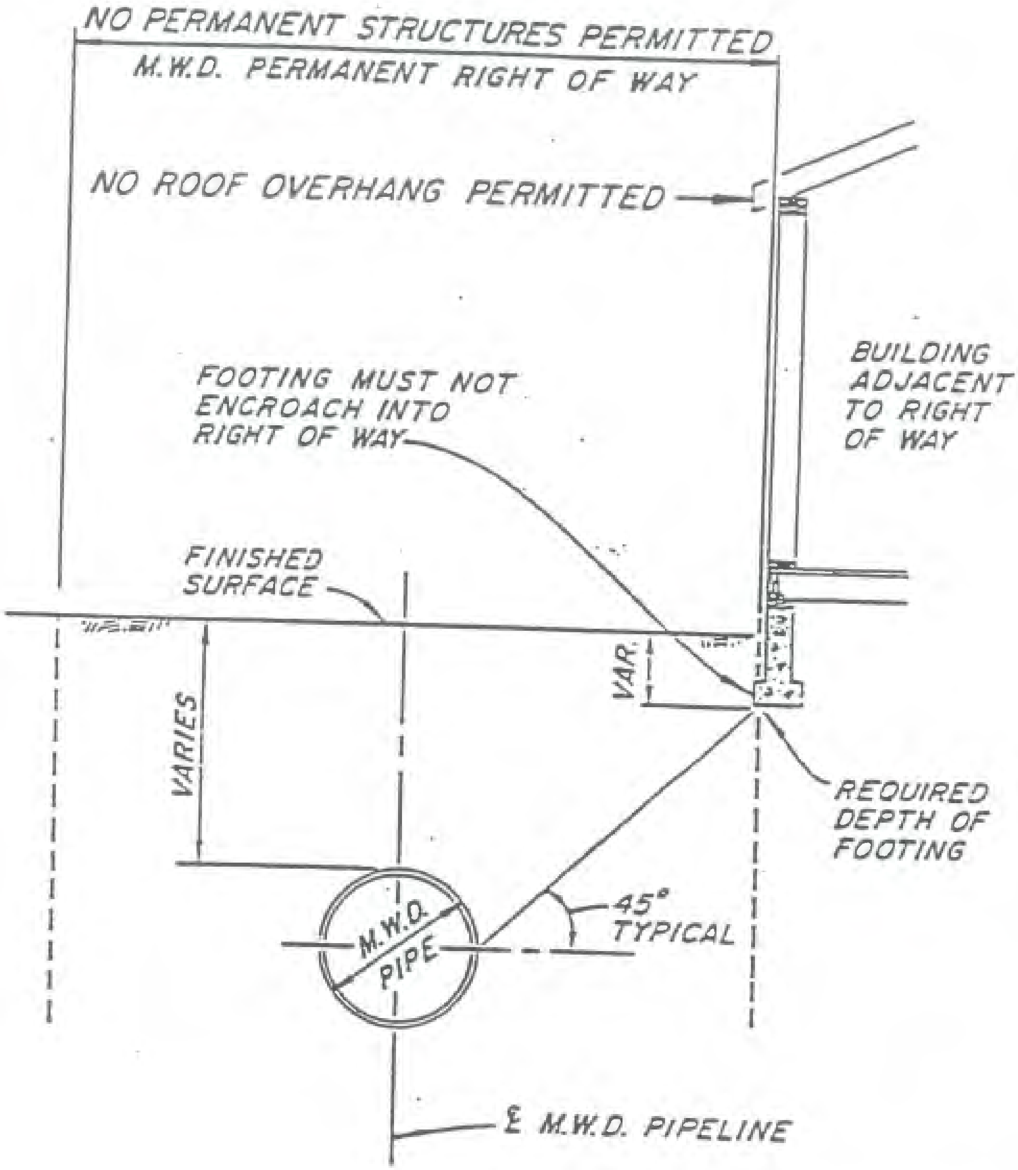


FIGURE 1



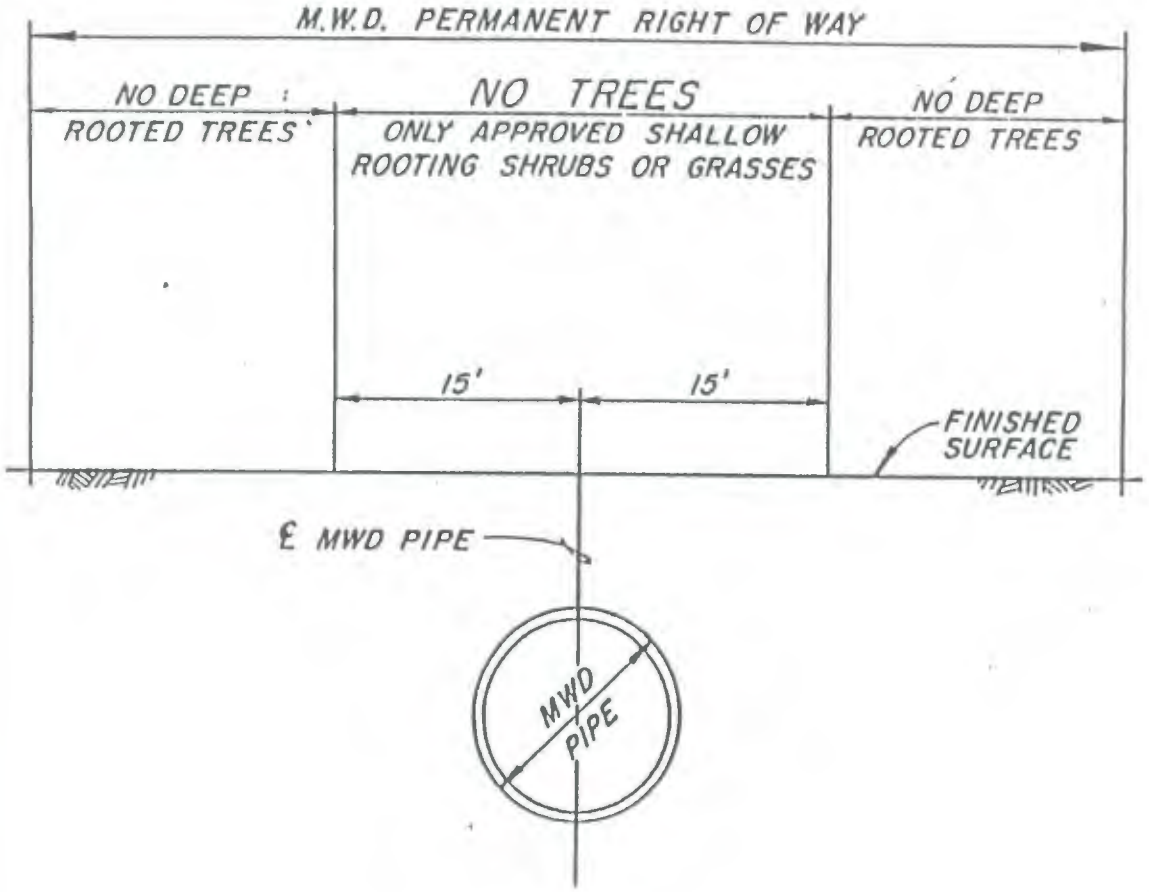
NOTE: M.W.D. PIPELINE SIZE, DEPTH, LOCATION AND WIDTH OF PERMANENT RIGHT OF WAY VARIES.

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

REQUIREMENTS FOR BUILDINGS AND FOOTINGS ADJACENT TO M.W.D. RIGHT OF WAY

DRAWN ______ RECOMMENDED ______
TRACED ______
CHECKED ______ APPROVED ______

FIGURE 2



THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

LANDSCAPE GUIDELINES FOR M.W.D. RIGHT OF WAY

DRAWN ..... RECOMMENDED .....
TRACED ..... APPROVED .....
CHECKED .....

FIGURE 3

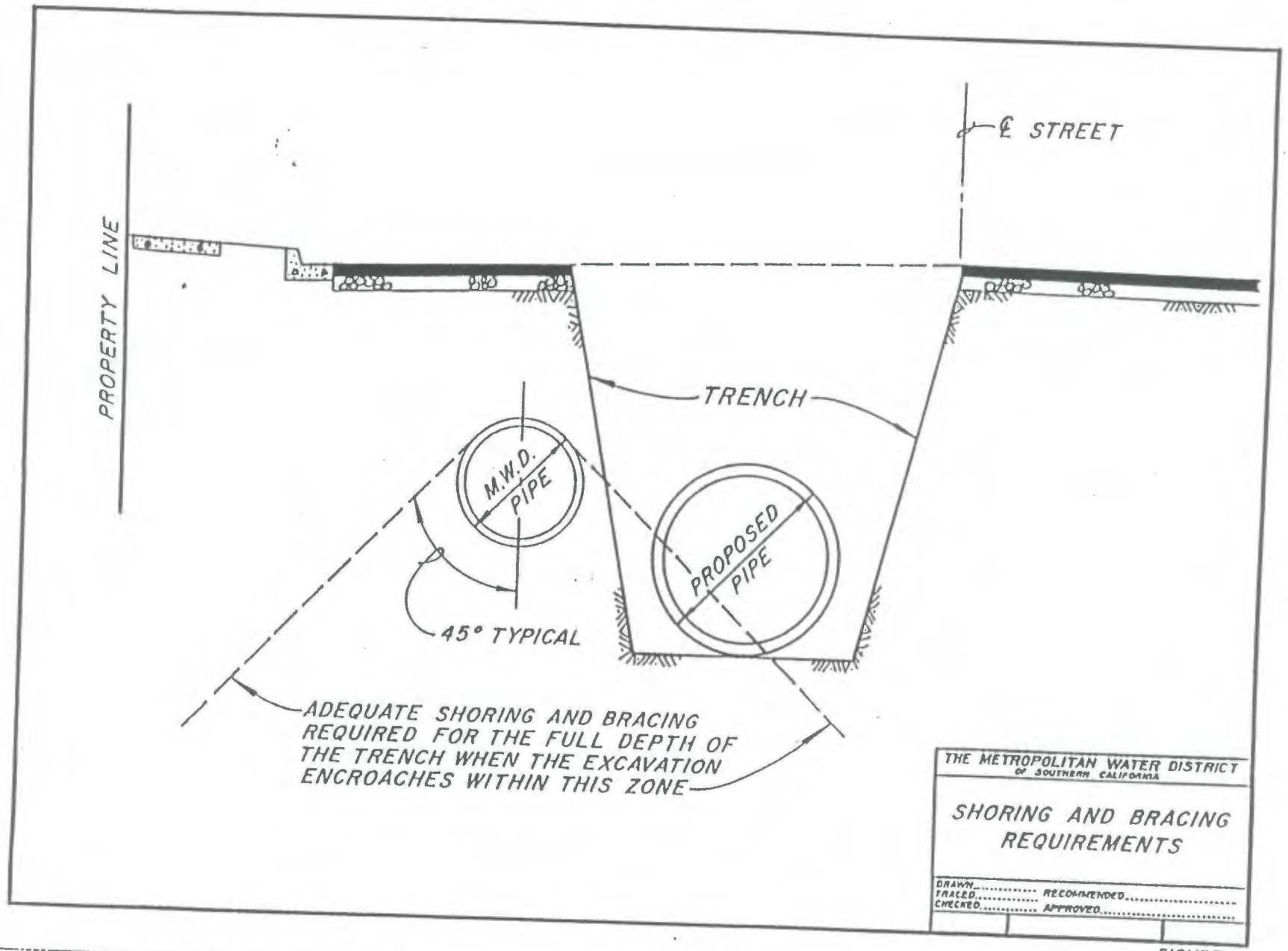
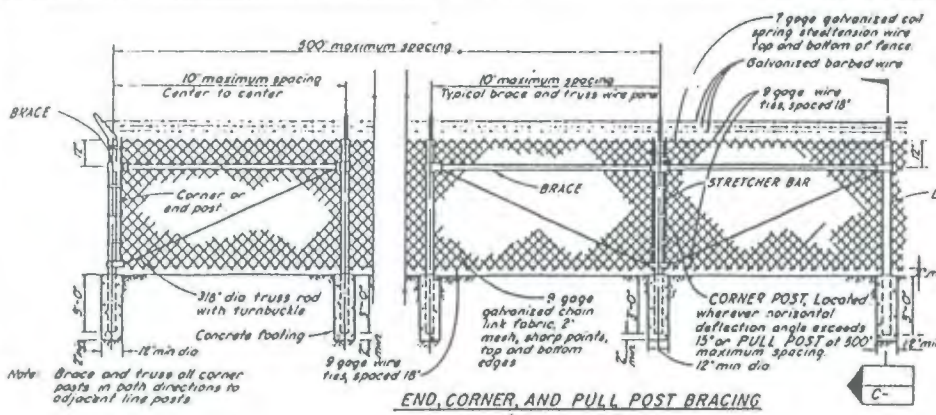
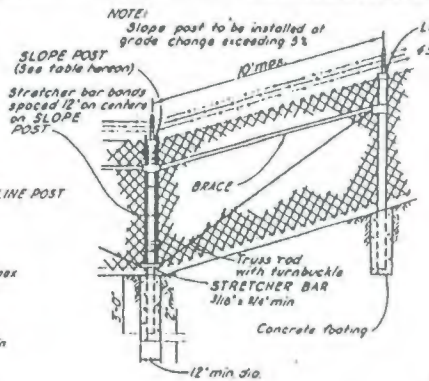


FIGURE 4

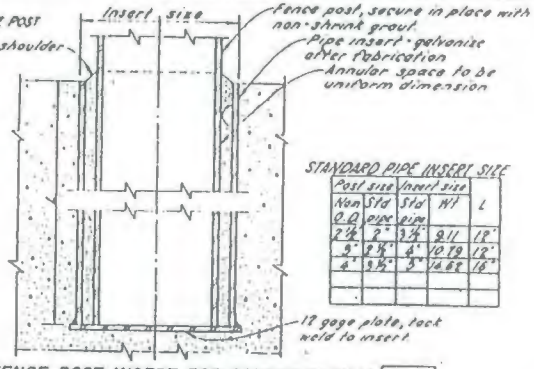
SPECIFICATIONS NO. SHEET NO.



END, CORNER, AND PULL POST BRACING
(Not to scale)



TYPICAL FENCE ON SLOPE
(Not to scale)

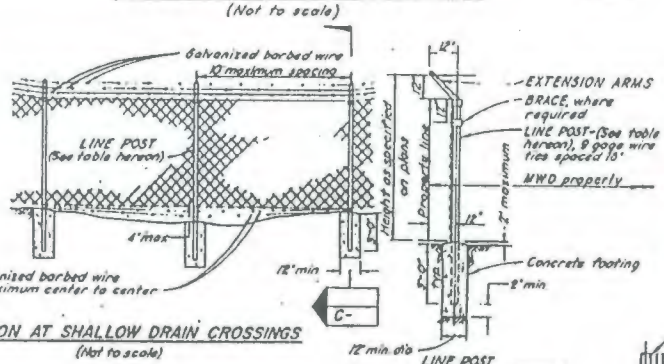


STANDARD PIPE INSERT SIZE

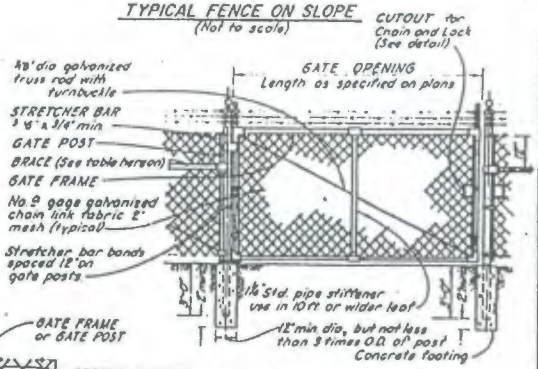
Post size	Insert size			
Nom O.D.	Std pipe	Std pipe	W.T.	L
2½"	2"	3½"	9.11	12"
3"	2½"	4"	10.79	12"
4"	3½"	5"	14.62	16"

FENCE POST INSERT FOR CONCRETE WALL AND CONCRETE CURB
(Not to scale)

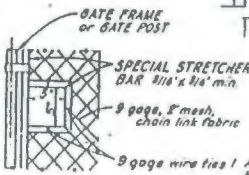
1



ELEVATION AT SHALLOW DRAIN CROSSINGS
(Not to scale)

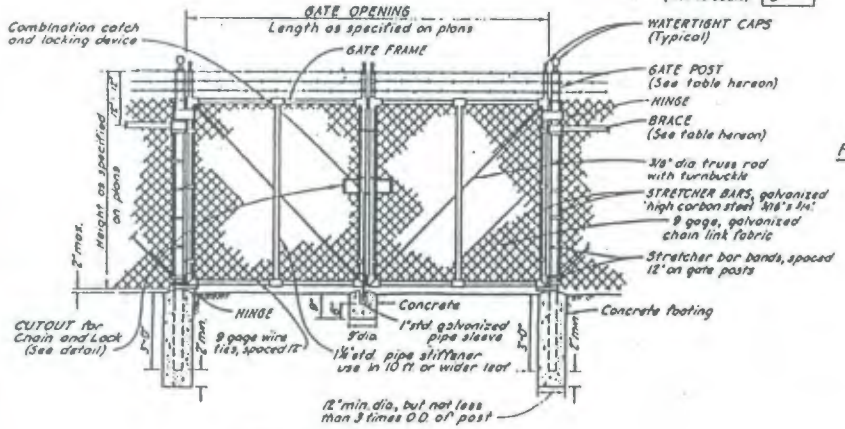


SINGLE SWING GATE DETAIL
(Not to scale)



DETAIL OF CUTOUT FOR CHAIN AND LOCK
(Not to scale)

Use	Type	Nominal Size (inches)	Actual O.D. (inches)	Weight per foot Pounds
End, corner, slope, pull and gate posts (for single gates 6 feet or less in width and double gates 12 feet or less in width) for chain link fabric 72 inches or higher	Pipe	2½	2.875	3.79
End, corner, slope, pull and gate posts (for single gates 6 feet or less in width and double gates 12 feet or less in width) for chain link fabric less than 72 inches height	Pipe	2	2.375	3.63
Gate posts for single swing gates over 6 feet but not over 13 feet in width and double swing gates over 12 feet but not over 26 feet in width.	Pipe	3½	4.000	9.11
Gate posts for single swing gates over 13 feet but not over 18 feet in width and double swing gates over 26 feet but not over 36 feet in width.	Pipe	6	6.625	18.97
Gate posts for single swing gates over 18 feet in width and double swing gates over 36 feet in width	Pipe	8	8.625	24.70
Line posts for chain link fabric 72 inches or higher	Pipe H-Section	2 2"x6" 17#	2.375	3.65 4.10
Line posts for chain link fabric less than 72 inches in height	Pipe H-Section	1¼ 1¼x1¼ 14#	1.900	2.72 2.80
Braces	Pipe H-Section	1¼ 1¼x1¼ 11#	1.660	2.27 2.89
Frame for gates	Pipe	1¼	1.900	2.72
Stiffeners for gates	Pipe	1¼	1.660	2.27



DOUBLE SWING GATE DETAIL
(Not to scale)

GENERAL NOTES

1. All ferrous parts and materials shall be galvanized after fabrication
2. Adjustable tighteners shall be turnbuckle or equivalent, having minimum 6" take-up
3. Extension arms for barbed wire shall be steel, malleable iron or wrought iron and shall be attached to the top of the post with a ⅜ inch round head rivet. The extension arms shall carry three wires each at approximately 5 inch centers in a plane approximately 45° from the vertical.
4. All gate hinges shall be heavy duty malleable iron or steel, industrial service type, 270 degree swing, of approved quality and design.
5. Secure cap to post with ⅜ inch round head rivet

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA
DISTRIBUTION SYSTEM

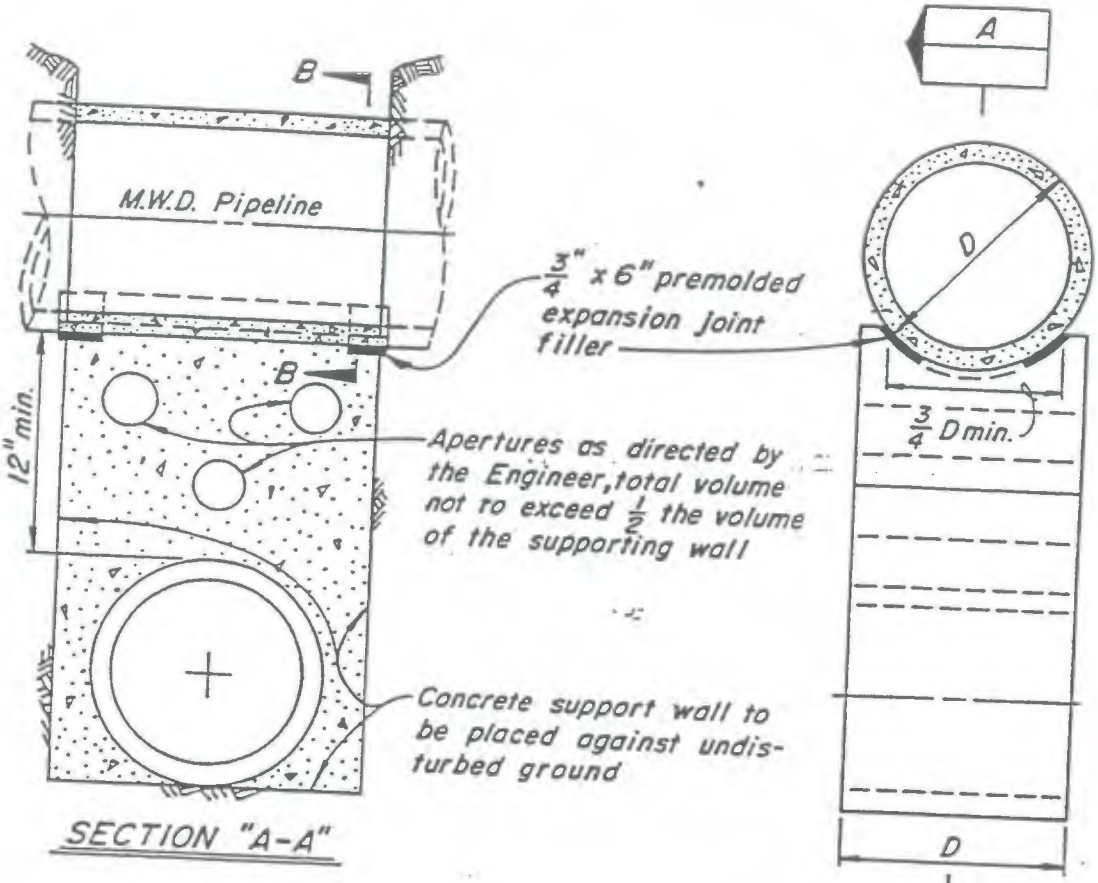
CHAIN LINK FENCE DETAILS

DESIGNED
DRAWN
CHECKED
RECOMMENDED
APPROVED
WORK ORDER NO.
LOS ANGELES

NO.	DATE	BY	CK'D.	REVISION	ENG.	APP.

ORIGINAL RELEASE | MECH. | STRUCT. | ELEC. | CIVIL | SPECS | DATE
REVISION COORDINATION CHECK
INTERSECTIONAL COORDINATION CHECK

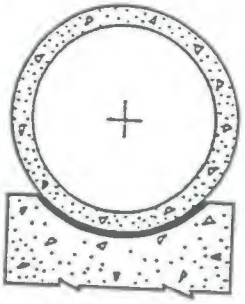
FIGURE 5



SECTION "A-A"

CROSS SECTION

1. Supporting wall shall have a firm bearing on the subgrade and against the side of the excavation.
2. Premolded expansion joint filler per ASTM D-1751-73 to be used in support for steel pipe only.
3. If trench width is 4 feet or greater, measured along centerline of M.W.D. pipe, concrete support must be constructed.
4. If trench width is less than 4 feet, clean sand backfill, compacted to 90% density in accordance with the provisions of ASTM Standard D-1557-70 may be used in lieu of the concrete support wall.



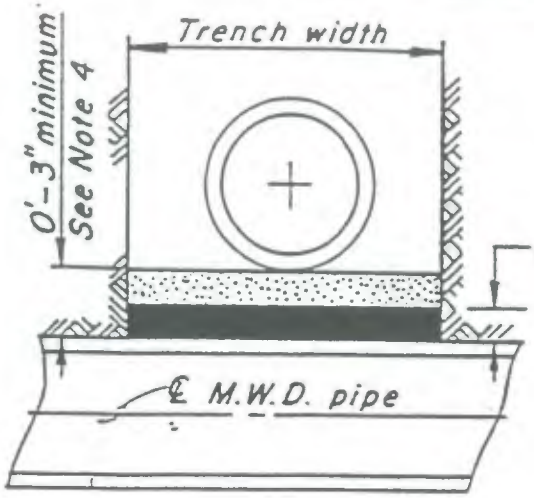
SECTION "B-B"

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

TYPICAL SUPPORT FOR M.W.D. PIPELINE

DRAWN
TRACED
CHECKED
RECOMMENDED
APPROVED

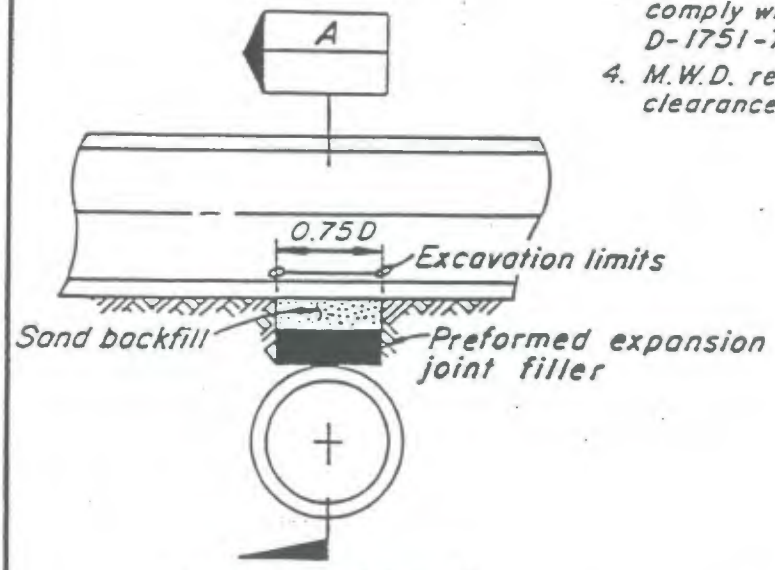
C-9547



SECTION A

NOTES

1. This method to be used where the utility line is 24" or greater in diameter and the clearance between the utility line and M.W.D. pipe is 12" or less.
2. Special protection may be required if the utility line diameter is greater than M.W.D. pipe or if the cover over the utility line to the street surface is minimal and there is 12" or less clearance between M.W.D. pipe and the utility line.
3. Preformed expansion joint filler to comply with ASTM designation D-1751-73.
4. M.W.D. requests 12" minimum clearance whenever possible.



CROSS SECTION

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

TYPICAL EXPANSION JOINT FILLER PROTECTION FOR OVERCROSSING OF M.W.D. PIPELINE

DRAWN _____ RECOMMENDED _____
TRACED _____
CHECKED _____ APPROVED _____

C-11632

Gregg

Edmond G. Brown, Jr., *Governor*

STATE OF CALIFORNIA
NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., ROOM 100
West SACRAMENTO, CA 95691
(916) 373-3710
Fax (916) 373-5471

September 25, 2014

Gregg BeGell
Los Angeles County Flood Control District
900 South Fremont Avenue, 11th Floor
Alhambra, CA 91803

RE: SCH# 2014081106 Enhanced Watershed Management Programs (EWMP) Program EIR, Los Angeles County.

Dear Mr. BeGell,

The Native American Heritage Commission (NAHC) has reviewed the Notice of Preparation (NOP) referenced above. The California Environmental Quality Act (CEQA) states that any project that causes a substantial adverse change in the significance of an historical resource, which includes archeological resources, is a significant effect requiring the preparation of an EIR (CEQA Guidelines 15064(b)). To comply with this provision the lead agency is required to assess whether the project will have an adverse impact on historical resources within the area of project effect (APE), and if so to mitigate that effect. To adequately assess and mitigate project-related impacts to archaeological resources, the NAHC recommends the following actions:

- ✓ Contact the appropriate regional archaeological Information Center for a record search. The record search will determine:
  - If a part or all of the area of project effect (APE) has been previously surveyed for cultural resources.
  - If any known cultural resources have already been recorded on or adjacent to the APE.
  - If the probability is low, moderate, or high that cultural resources are located in the APE.
  - If a survey is required to determine whether previously unrecorded cultural resources are present.
- ✓ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure.
  - The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.
- ✓ Contact the Native American Heritage Commission for:
  - A Sacred Lands File Check. **USGS 7.5-minute quadrangle name, township, range, and section required**
  - A list of appropriate Native American contacts for consultation concerning the project site and to assist in the mitigation measures. **Native American Contacts List attached**
- ✓ Lack of surface evidence of archeological resources does not preclude their subsurface existence.
  - Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) Guidelines §15064.5(f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
  - Lead agencies should include in their mitigation plan provisions for the disposition of recovered cultural items that are not burial associated, which are addressed in Public Resources Code (PRC) §5097.98, in consultation with culturally affiliated Native Americans.
  - Lead agencies should include provisions for discovery of Native American human remains in their mitigation plan. Health and Safety Code §7050.5, PRC §5097.98, and CEQA Guidelines §15064.5(e), address the process to be followed in the event of an accidental discovery of any human remains and associated grave goods in a location other than a dedicated cemetery.

Sincerely,

Katy Sanchez

Katy Sanchez
Associate Government Program Analyst

CC: State Clearinghouse

Native American Contacts
Los Angeles County
September 25, 2014

Tongva Ancestral Territorial Tribal Nation
John Tommy Rosas, Tribal Admin.
, Gabrielino Tongva
tattnlaw@gmail.com
(310) 570-6567

Gabrielino-Tongva Tribe
Bernie Acuna, Co-Chairperson
Contact information unavailable Gabrielino
,
Last attempted verification 9/5/14
(310) 428-5690 Cell

Gabrieleno/Tongva San Gabriel Band of Mission Indian
Anthony Morales, Chairperson
P.O. Box 693 Gabrielino Tongva
San Gabriel , CA 91778
GTTribalcouncil@aol.com
(626) 483-3564 Cell
(626) 286-1262 Fax

Gabrielino-Tongva Tribe
Linda Candelaria, Co-Chairperson
Contact information unavailable Gabrielino
,
Last attempted verification 9/5/14
(626) 676-1184 Cell

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St. Gabrielino Tongva
Los Angeles , CA 90012
sgoad@gabrielino-tongva.com
(951) 807-0479

Gabrieleno Band of Mission Indians
Andrew Salas, Chairperson
P.O. Box 393 Gabrielino
Covina , CA 91723
gabrielenoindians@yahoo.
(626) 926-4131

Gabrielino Tongva Indians of California Tribal Council
Robert F. Dorame, Tribal Chair/Cultural Resources
P.O. Box 490 Gabrielino Tongva
Bellflower , CA 90707
gtongva@verizon.net
(562) 761-6417 Voice/Fax

Gabrielino-Tongva Tribe
Conrad Acuna
Contact information unavailable Gabrielino
,
Last attempted verification 9/5/14

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH # 2014081106, Enhanced Watershed Management Programs (EWMP) Program EIR, Los Angeles County.

Native American Contacts
Los Angeles County
September 25, 2014

Gabrielino /Tongva Nation
Sam Dunlap, Cultural Resources Director
P.O. Box 86908 Gabrielino Tongva
Los Angeles , CA 90086
samdunlap@earthlink.net
(909) 262-9351

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH # 2014081106, Enhanced Watershed Management Programs (EWMP) Program EIR, Los Angeles County.

Laura Rocha

From: Begell, Gregg - Consultant <gbegell@dpw.lacounty.gov>
Sent: Monday, October 06, 2014 6:59 AM
To: Crumpacker, Andrea; David Pohl
Subject: FW: COMMENTS ON NOTICE OF PREPARATION FOR DRAFT PROGRAM EIR FOR ENHANCED WATERSHED MANAGEMENT PROGRAMS FOR LA COUNTY

Comment Letter.

Gregg BeGell P E
Project Manager
Project Management Division II

From: patricia mc pherson [mailto:patriciamcpherson1@verizon.net]
Sent: Friday, October 03, 2014 1:27 PM
To: Begell, Gregg - Consultant
Subject: COMMENTS ON NOTICE OF PREPARATION FOR DRAFT PROGRAM EIR FOR ENHANCED WATERSHED MANAGEMENT PROGRAMS FOR LA COUNTY

Grassroots Coalition submits its support of the comments made below by Mr. Rex Frankel.
Due on the 29th, GC was in transit from out of state and belatedly requests that its support of the comments below be part of
the record.
Please also note attachment of imagery of California.
Currently, the State Coastal Conservancy and the Dept of Fish and Wildlife have created a preordained outcome for the Ballona Wetlands Restoration. This outcome that has been determined to destroy the freshwater aquifers of Ballona (classified as potential drinking water) without the legal requirements of public participation and transparency of process that the millions of dollars of public bond money set forth in 2004. Such destructive plans to the watershed of the Ballona Valley should not be allowed to proceed.
The failure of the state to fully engage the public and provide accountability and transparency of process has led to the
dire situation of groundwater removal that CAlifornia and Ballona Wetlands have.

http://www.latimes.com/science/sciencenow/la-sci-sn-california-drought-groundwater-satellite-20141002-story.html

Thank you,
Patricia McPherson, President -Grassroots Coalition

September 29, 2014, 1:30 pm

From Rex Frankel, director, Ballona Ecosystem Education Project,
6038 west 75th street, L.A. CA 90045
310-738-0861, email: rexfrankel@yahoo.com

I understand why no one but myself attended the NOP hearing on September 9th in Marina Del Rey. You have no specific projects to analyze for environmental impacts. You are attempting to analyze the environmental impact of words, not specific actions. It is impossible to analyze the impacts of no stated physical projects, just as it is impossible to analyze those unstated projects' impacts on the environmental setting, ie., the proper baseline, because you have no specific locations for these unspecified projects. Thus all you can say is to analyze the entire county. The two most essential parts of an environmental analysis are missing here: specific projects and specific sites. You have the process all backwards here, and thus, commenting on this NOP in any specific manner is impossible.

Some background: In 2002, local governments settled lawsuits and agreed to consent decrees and promised to stop violations of bacterial health codes at our beaches by 2021. This agreement gave the public agencies an extension beyond the original deadline of 2013 but only if the projects created new parkland and river corridors that could catch and clean water before it fouled the beaches.

In 2006, L.A. City proposed its first big plan under this agreement, an Implementation Plan for the Santa Monica Bay Beaches watersheds. This plan was sent back for redrafting by the RWQCB as it only reached 2% of its target and thus, would not accomplish the goal in the consent decree.

Also in 2006, L.A. city proposed the Integrated Resource Plan which mainly focused on building 25 Hyperion-style urban runoff treatment plants which would have cost the average homeowner ratepayer $400 a month. This plan went nowhere.

In 2012, the County Supervisors tried to quietly approve a $300 million per year property tax hike to build a non-existent list of runoff cleansing and capturing projects. Howls of opposition arose and that plan went nowhere. The public wanted to know what they were paying for.

Now, you are finally starting to design the cleanup plan. But how can you ask the public to weigh in on the scope of the environmental analysis of that plan, when your description of that plan contains no specifics? Your stated plan to defer the environmental analysis of specific project impacts to when each one is up for approval thus ignores the cumulative impacts and therefore is "piecemealing", by starting major momentum of a project that is composed of many necessary parts, yet deferring analysis and the controversy to a multitude of separate EIRs and CEQA documents and public hearings, all the while public input is diffused. We never get to weigh in on whether we like the complete plan because the Program EIR has no specifics to arouse concern and the real project discussion is delayed until much later in a way that requires massive efforts by the public to keep track of the success of the big plan.

The people who will pay for this plan want to see the specifics before you raise our taxes to pay for it. We want expanded and unpaved river corridor parks. We do not want the plan to include converting existing wetlands and wildlife habitat into pollution dumps and sumps. We want what we were promised, not a lame compromise that puts the cleanup burden on existing public lands, parks and house front yards. We want a complete plan for us to judge whether it will accomplish its promises and goals before you produce an EIR, not the other way around.

Please put me on the notification list for all actions relating to this project. Thank you.

Paige Anderson

To: Tom Barnes
Subject: RE: ADDITIONAL COMMENTS ON L.A. County Enhanced Watershed Management Program, Notice of Preparation

---

From: Rex Frankel [mailto:rexfrankel@yahoo.com]
Sent: Wednesday, October 29, 2014 5:28 PM
To: Begell, Gregg - Consultant
Cc: kathy.knight@verizon.net
Subject: ADDITIONAL COMMENTS ON L.A. County Enhanced Watershed Management Program, Notice of Preparation

ADDITIONAL COMMENTS ON EWMP NOP: October 29, 2014

The problem I have with a Program EIR for a "program" that is devoid of a list of all necessary specific projects is that it short-circuits the cumulative impacts review plus it facilitates illegal piecemealing of the many TMDL compliance projects. A program EIR can be allowed when the individual and currently unknown specific sub projects have "independent utility", thus building and analyzing them separately has no impact on the effectiveness of the other sub projects, nor does it make it mandatory that these other projects also be approved. That is not the case here. The goal of the EWMP and the sub projects is "to achieve permit compliance with RWLs" (NOP page 7 paragraph 3 and page 8, paragraph 1). Thus, all projects must be approved and successfully achieve their goals or the region will not be in compliance with the 2012 MS4 permit, the Federal Clean Water Act and the NPDES permits. If only some of the projects prove feasible and buildable, the construction of the others will not result in CWA compliance. That begs the question of is this project worthwhile if piecemealed at all? Will the beach only be clean in certain locations along the shore, while others will not be as a treatment strategy proved too expensive or technologically infeasible? If the taxpayers ultimately decide this project is too expensive, but certain parts are already built, does that mean that pulling-the-plug will result in non compliance and thus a waste of the taxpayers' dollars already spent? This s

How can the public know if the permits and Clean Water Act will be complied with if the approval of the individual pieces of the compliance strategy are broken up into numerous pieces each receiving their own separate CEQA review? All of this leads me to conclude that the specific projects must be reviewed and approved as part of a master plan project, with the public knowing the full cost of compliance, the full impacts of all projects and alternative policy choices. One specific alternative, distasteful as I find it, would be analysis of only building some projects and also enforcing no-swimming rules for three days after rainfall at beaches.

I will repeat the conclusion of my first NOP comments: The people who will pay for this plan want to all of the see the specifics before you raise our taxes to pay for it. We want expanded and unpaved river corridor parks. We do not want the plan to include converting existing wetlands and wildlife habitat into pollution dumps and sumps. We want what we were promised, not a lame compromise that puts the cleanup burden on existing public lands, parks and house front yards. We want a complete plan for us to judge whether it will accomplish its promises and goals before you analyze and mandate it with an EIR, not the other way around.

Rex Frankel

From: "Begell, Gregg - Consultant" <gbegell@dpw.lacounty.gov>
To: Rex Frankel <rexfrankel@yahoo.com>
Sent: Monday, September 29, 2014 2:26 PM
Subject: RE: L.A. County Enhanced Watershed Management Program, comments on Notice of Preparation

Rex

Thank you for your comments. It will be reviewed for use in the PEIR.

Yes, when people think of an EIR they are thinking of a project. This is a Program EIR, the main PEIR document contains some projects as examples but it's a program.

We are presently working on the PEIR, check our website for information and details. www.LACoH2Osheds.com. We will be posting the PEIR plus public review meetings on the website.

Gregg BeGell P E
Project Manager
Project Management Division II

From: Rex Frankel [mailto:rexfrankel@yahoo.com]
Sent: Monday, September 29, 2014 1:59 PM
To: Begell, Gregg - Consultant
Subject: L.A. County Enhanced Watershed Management Program, comments on Notice of Preparation

COMMENTS ON NOTICE OF PREPARATION FOR DRAFT PROGRAM EIR FOR ENHANCED WATERSHED MANAGEMENT PROGRAMS FOR L.A. COUNTY

September 29, 2014, 1:30 pm

From Rex Frankel, director, Ballona Ecosystem Education Project,
6038 west 75th street, L.A. CA 90045
310-738-0861, email: rexfrankel@yahoo.com

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In 2012, the County Supervisors tried to quietly approve a $300 million per year property tax hike to build a non-existent list of runoff cleansing and capturing projects. Howls of opposition arose and that plan went nowhere. The public wanted to know what they were paying for.

Now, you are finally starting to design the cleanup plan. But how can you ask the public to weigh in on the scope of the environmental analysis of that plan, when your description of that plan contains no specifics? Your stated plan to defer the environmental analysis of specific project impacts to when each one is up for approval thus ignores the cumulative impacts and therefore is "piecemealing", by starting major momentum of a project that is composed of many necessary parts, yet deferring analysis and the controversy to a multitude of separate EIRs and CEQA documents and public hearings, all the while public input is diffused. We never get to weigh in on whether we like the complete plan because the Program EIR has no specifics to arouse concern and the real project discussion is delayed until much later in a way that requires massive efforts by the public to keep track of the success of the big plan.

The people who will pay for this plan want to see the specifics before you raise our taxes to pay for it. We want expanded and unpaved river corridor parks. We do not want the plan to include converting existing wetlands and wildlife habitat into pollution dumps and sumps. We want what we were promised, not a lame compromise that puts the cleanup burden on existing public lands, parks and house front yards. We want a complete plan for us to judge whether it will accomplish its promises and goals before you produce an EIR, not the other way around.

Please put me on the notification list for all actions relating to this project. Thank you.

Paige Anderson

To: Tom Barnes
Subject: RE: ADDITIONAL COMMENTS ON L.A. County Enhanced Watershed Management Program, Notice of Preparation

From: Rex Frankel [mailto:rexfrankel@yahoo.com]
Sent: Monday, September 29, 2014 1:59 PM
To: Begell, Gregg - Consultant
Subject: L.A. County Enhanced Watershed Management Program, comments on Notice of Preparation

COMMENTS ON NOTICE OF PREPARATION FOR DRAFT PROGRAM EIR FOR ENHANCED WATERSHED MANAGEMENT PROGRAMS FOR L.A. COUNTY

September 29, 2014, 1:30 pm

From Rex Frankel, director, Ballona Ecosystem Education Project,
6038 west 75th street, L.A. CA 90045
310-738-0861, email: rexfrankel@yahoo.com

I understand why no one but myself attended the NOP hearing on September 9th in Marina Del Rey. You have no specific projects to analyze for environmental impacts. You are attempting to analyze the environmental impact of words, not specific actions. It is impossible to analyze the impacts of no stated physical projects, just as it is impossible to analyze those unstated projects' impacts on the environmental setting, ie., the proper baseline, because you have no specific locations for these unspecified projects. Thus all you can say is to analyze the entire county. The two most essential parts of an environmental analysis are missing here: specific projects and specific sites. You have the process all backwards here, and thus, commenting on this NOP in any specific manner is impossible.

Some background: In 2002, local governments settled lawsuits and agreed to consent decrees and promised to stop violations of bacterial health codes at our beaches by 2021. This agreement gave the public agencies an extension beyond the original deadline of 2013 but only if the projects created new parkland and river corridors that could catch and clean water before it fouled the beaches.

In 2006, L.A. City proposed its first big plan under this agreement, an Implementation Plan for the Santa Monica Bay Beaches watersheds. This plan was sent back for redrafting by the RWQCB as it only reached 2% of its target and thus, would not accomplish the goal in the consent decree.

Also in 2006, L.A. city proposed the Integrated Resource Plan which mainly focused on building 25 Hyperion-style urban runoff treatment plants which would have cost the average homeowner ratepayer $400 a month. This plan went nowhere.

In 2012, the County Supervisors tried to quietly approve a $300 million per year property tax hike to build a non-existent list of runoff cleansing and capturing projects. Howls of opposition arose and that plan went nowhere. The public wanted to know what they were paying for.

Now, you are finally starting to design the cleanup plan. But how can you ask the public to weigh in on the scope of the environmental analysis of that plan, when your description of that plan contains no specifics? Your stated plan to defer the environmental analysis of specific project impacts to when each one is up for approval thus ignores the cumulative impacts and therefore is "piecemealing", by starting major momentum of a project that is composed of many necessary parts, yet deferring analysis and the controversy to a multitude of separate EIRs and CEQA documents and public hearings, all the while public input is diffused. We never get to weigh in on whether we like the complete plan because the Program EIR has no specifics to arouse concern and the real project discussion is delayed until much later in a way that requires massive efforts by the public to keep track of the success of the big plan.

The people who will pay for this plan want to see the specifics before you raise our taxes to pay for it. We want expanded and unpaved river corridor parks. We do not want the plan to include converting existing wetlands and wildlife habitat into pollution dumps and sumps. We want what we were promised, not a lame compromise that puts the cleanup burden on existing public lands, parks and house front yards. We want a complete plan for us to judge whether it will accomplish its promises and goals before you produce an EIR, not the other way around.

Please put me on the notification list for all actions relating to this project. Thank you.

TRANSMITTAL

DATE: October 29, 2014

TO: Gregg BeGell, P.E.
County of Los Angeles, Department of Public Works/LACo Flood Control District
900 South Fremont Avenue, 5th Floor Alhambra, CA 91803
gbegell@dpw.lacounty.gov

CC: **Gloria Molina, LACo Supervisor**
Micheal Antonovich, LACo Supervisor
Sierra Club, Angeles Chapter, Water Committee
CCFAC Executive Director

FROM: **Dr. Tom Williams,**
Sierra Club, Angeles Chapter, Water Committee
Citizens Coalition For A Community
4117 Barrett Road, Los Angeles, CA 90032-1712
ctwilliams2012@yahoo.com, 323-528-9682

SUBJECT: **County of Los Angles, Enhanced Watershed Management Plan**
Scoping for Programmatic EIR

RE: **COMMENTS for Enhanced Watershed Management Plan PEIR CS-CH#2014081106**
Based on NOP and other project information downloaded from www.LACoH2Osheds.com.

Thank you for the opportunities to comment on the Notice of Preparation/Initial Study (NOP/IS) and other Scoping documents related to the proposed LA County Enhanced Watershed Management Plan (EWMP). Also thank you for the extension of the deadline for such comments, I believe it was very helpful for our commenters.

I could have continued for many more pages but I have been exhausted by the lack of real effort on the part of the preparers to make the Enhanced Watershed Program project meaningful, adequate, and complete and initially assess its secondary and tertiary impacts for knowledgeable public reviewers. Unfortunately the current NOP/IS and supporting documents appears to be an initial version of the vague program that has been developed by others, rather than a project or even program level DEIR preparation and is in need of major tecchnical additions, editing, technical, and other revisions. The Scoping documents are inadequate and incomplete for the purposes of Scoping, and Scoping documents must updated, revised, and reissued. If you need further clarifications and many more comments, I am available for discussions or correspondence with your staff.

Dr. TW: Background: 40+ years with Worldwide/California water resources, management plans, water supplies, water distribution and transmission systems, and remote water resources development, with preparation, review, and commenting for 300+ EIRs/EISs/EAs (1972 to Date) and with 30+ years in Parsons and URS Corporations, 12+ years with Dubai Govt./Dubai World, and 6+years with Sierra Club Angeles Chapter (Water, Transportation, and Oil and Gas Comtes) and Citizens Coalition for a Safe Community.

Thank you for the opportunity to review and comment. Our comments form two parts: general and specific comments, as shown below for the Section and the two segments.

I have tried to provide citations in comment format with Doc./page/paragraph. Where appropriate, text has been inserted from documents and emphasis added usually as **bolded/underlines**. ***Comments/Requests are added in bolded/italics.***

Dr. Tom Williams
323-528-9682

1. GENERAL COMMENTS

1-1 Scoping and Project/Program Purposes and Needs

The Program description for any DEIR or PDEIR must include the basis of the project: Purposes, Needs Goals, Objectives,

Absence of clearly defined purposes and need, goals and objectives, and priorities renders both the Program and Projects virtually non-reviewable and thereby inadequate and incomplete for public review and comment.

Without purposes and needs/goals and objectives, the public and reviewers cannot be expected to provide reasonable alternatives.

NOP/IS

p.1/par.2 The **purpose** of the MS4 Permit is to ensure Permittees are not causing or contributing to exceedances of water quality **objectives** or impairments of beneficial uses in the receiving waters of the Los Angeles region.

7/3 2.2 States are required not only to identify these “water quality limited segments” but also to prioritize such waters for the **purpose of developing Total Maximum Daily Loads** (TMDLs).

9/5 4.1.1 Capture and Use BMPs collect and use stormwater where applicable for **purposes** such as irrigation.

1/3 The overarching **goal** of BMPs in the EWMP is to reduce the impact of stormwater and non-stormwater on receiving water 2/1 quality and address the water quality priorities as defined by the MS4 Permit.

2/1 The development of each EWMP will involve the evaluation and selection of multiple BMP types, including nonstructural (institutional) and distributed, centralized, and regional structural watershed control measures, that will be implemented to meet **compliance goals and strategies under the 2012 MS4 Permit**.

8/7 The overarching **goal** of BMPs in the EWMPs is to reduce the impact of stormwater and non-stormwater on receiving water quality and to address water conservation and the water quality **priorities**.

11/3 The MS4 permit allows Permittees to customize MCMs to address high-priority water quality **goals** within their watersheds.

13/2 The PEIR will examine the project’s effects on global climate change and evaluate consistency of the project with the State’s GHG emissions reduction **goals**.

Scoping Meeting - Pic 4

• **Project Purpose:** MS4 Permit Compliance (R4-2012-0175)
– Each Permittee is responsible for its local MS4 compliance
– Permit compliance through EWMPs
• 12 NOIs submitted to LARWQCB
• Collectively prepared by participating Permittees
– Los Angeles Regional Water Quality Control Board (LARWQCB) approves EWMPs

1-2 PEIR Contents

1-2 Total lack of reference to assignment of significance and related mitigation.

NOP/IS lacks clear definition and presentation as to potential effects, scopes, and schedules of the program and related projects and their implementation, construction, and operations.

As a water resources project, the physical changes represent a small portion of the overall potential effect of the program and projects, and the NOP does not reflect the systemic nature of water resources effects on the environment.

The NOP and the PDEIR andd PjDEIRs must clearly provide a Scope for each basin, schedules, and related environmental sectors, a Schedule for "implementation", construction, and "operations" (?=forever).

The PEIR will -

"result from implementation of the projects and management actions identified in each EWMP
"result from the construction and operation of EWMP projects,
"focus on potential effects.
"assess the physical changes...including direct, indirect, and cumulative impacts.
"identify mitigation measures to minimize potentially significant impacts of each EWMP.
"anticipated to evaluate...following preliminary listing of environmental issues.

1-3. Environmental Resources, Setting, and Effects - Employment, Costs, Revenues, and Socieconomics

Employment, Costs, Revenues, and Socioeconomics Although mentions are made regarding economic and employment effects related to the Program and its projects, no costs-benefits, financials/funding sources, or other revenues assessments are included in the NOP.

Similarly, socioeconomics for major infrastructure programs and projects are closely related to "Environmental Justice" of those receiving benefits and those experiencing adverse effects directly through water-related operations and indirectly through direct/indirect payments for such effects and prospective benefits for those with much largely parcels and incomes.

5/1 The primary approach to each of the EWMPs, as identified in the Draft Work Plans, includes identifying community-friendly, **cost-effective methods** of reducing urban runoff pollution and incorporating distributed and centralized structural and nonstructural watershed control measures for a multi-pollutant, multi-benefit approach.

8/3 The EWMPs include multi-benefit stormwater management projects that may also provide environmental, aesthetic, recreational, water supply, and/or other community enhancements **cost-effective manner**.

11/1 Most institutional BMPs are implemented to meet Minimum Control Measure (MCM) requirements in the MS4 permit; MCMs are considered a subset of institutional BMPs. MCMs do not involve construction of facilities that physically remove pollutants, but **may involve costs associated with the procurement and installation** of items such as signage or spill response kits.

12.3 Air Quality Construction and operation of EWMP projects could cause air emissions...vehicle trips associated with **any increases in employment**....

14/3 Population...The PEIR will, however, identify current population and **employment projections**...

1-4 Controversies Regarding Program/Projects --- Stormwater Fees

Since the LACo Board of Supervisors have experienced significant controversy regarding the imposition of parcel fees for stormwater revenue and funding and has further created controversies regarding reassignment of parcel-area fees to parcel only fees, a thorough review of the economic, employment, and environmental justice issues must be addressed and defined for the NOP/IS,

As currently understood but avoided in Water agency and County presentations, an increase (e.g., x2+) in LACo stormwater fees would be applied on a parcel basis (no matter the size of parcel) as being proposed under the 2014 Measure P initiative which has no relationship to stormwater runoff and effects, compared to the current Recreation and Parks 1990s initiative which are based on parcel area (sqft) fees. For stormwater generation, area is directly related stormwater generation (e.g., 5000sqft may generate less runoff than 50,000sqft lots).

Therefore the NOP has not discussed the socioeconomic effects and related Environmental Justice issues related to the proposed program and the related controversy. A thorough assessment of all related revenue/costs issues must be presented in the PDEIR, including sources of revenues, revenue streams for life-of-project costs (especially for operations, maintenance, and replacements), basis for revenues (by parcel or by parcel-area), and Environmental Justice (which is not mentioned any where in the NOP/IS or presentation).

1-5 Mitigation Measures

Inconsistency uses and lack of definitions for most if not all related terms.

activities of "develop", identify", "proposed", or "evaluate".

to reduce potential, reduce the level, reduce potential adverse effect, any significant effects, to avoid,

are reduced or avoided, recommend

Vague generalities are presented and are so inconsistently applied within the same or related paragraphs as to render the entire presentation as useless.

The PDEIR must clearly present in matrices with links to discussions and appendices the project and program effects (quantifiedd/ranked), levels of significance for each sector/parameter, criteria levels for significances, proposed mitigations/compensations for significant effects, and a quantitative ranking of the effects levels following mitigation/compensation.

Lack of Mitigation

1-6 No measures are mentioned for many sectors but no basis could be established for such omissions, and comparable effects could be expected within these sectors similar to those that had need for measures mentioned.

12/2 Aesthetics ***No mitigation mentioned.***
12/4 Biology... ***No mitigation mentioned.***
13/2 Greenhouse Gases ***No mitigation mentioned***.
13/6 Land Use... ***No mitigation mentioned.***
14/4 Public Services... ***No mitigation mentioned.***
15/1 The PEIR will **evaluate potential energy consumption** associated with implementation of structural and nonstructural BMPs. ***No mitigation mentioned for Energy***

1-7 Mitigation, protection, and other measures and strategies are mentioned along with textual review of environmental sector but without any clear and concise statement of what they are, when they would be used, and how they could affect impacts, effects, and conditions. Mitigation measures in the Scoping NOP/IS are inconsistently mentioned as shown below.

Mitigation or compensation is required by CEQA for significant impacts.

Although mitigation is mentioned in the NOP/IS, mitigation and compensation are not mentioned in the Scoping Presentation slides; in reverse of "Alternatives", not mentioned in NOP/IS but present once in the Presentation.

Various terms - without definitions and consistent uses.

Protection measures mitigation strategies
significant effects
significant impacts
potentially necessary significant impacts
mitigate secondary effects of growth

As lead agency for the program LACo must clearly state the sole responsibility for thorough and consistent implementation in all projects of CEQA compliance and consistency of impact mitigation and compensation (including Environmental Justice and Socioeconomics).

The recirculated NOP/IS and PDEIR must provide a thorough presentation of:

Definitions of all related terms,
Process and quantified analyses for establishing the level of effects, mitigation, and remaining adverse effects and potential subjects of compensation,
Consistency of mitigations amongst all watersheds,
All current mitigation and compensation measures planned or anticipated by the Program and Project proponents, and
Explanation of absence of mitigation or compensation.

Examples

12/3 Air Quality...The PEIR...will **develop** mitigation measures if necessary to **reduce potential impacts**.
12/5 Cultural Resources Mitigation measures will be **identified** if necessary to **reduce the level of impact where possible**.
13/1 Geology... The PEIR will identify mitigation measures if necessary to **reduce potential adverse effects** to proposed facilities.
13/3 Hazards... Mitigation measures will be **proposed** if necessary to **reduce any significant effects** of the project...enountered during construction would be handled in accordance with applicable regulations.
13/4 Hydrology... The PEIR will identify stormwater quality **protection measures** required during construction and operation of proposed facilities. The PEIR also will **evaluate** potential impacts to flood control capacity and **develop mitigation strategies** if necessary **to avoid significant impacts**.
13/5 The PEIR will **evaluate** potential effects of increased storm water recharge and will identify mitigation measures if necessary to ensure that **potentially necessary significant impacts are reduced or avoided**.
14/2 Noise... The PEIR will **recommend mitigation strategies** to ensure that proposed EWMP projects implemented by local agencies comply with local noise policies and ordinances.
14/3 Population... The PEIR will...identify local planning jurisdictions with the authority to approve growth and **mitigate secondary effects of growth**.

14/5 Traffic... The PEIR will **identify mitigation strategies to reduce any potential effects**.
14/6 Utilities... The PEIR will **evaluate the project's potential to affect utilities** and will **identify mitigation measures to minimize the effects**.

1-8 Alternatives Although the project proponent has chosen to prepare an Environmental Impact Report, no mention is made regarding alternatives in the Initial Study/NOP. Only one reference to alternatives in all available related documents occurs in Slide 28, "Issues to be Analyzed" in the PEIR Scoping Presentation.

As the preparer included one reference to Alternatives, complete exclusion of such from the IS/NOP represents an arbitrary and incomplete presentation of CEQA documents. Without a clear concise statement of purposes and needs (goals and objectives, etc.), reasonable alternatives cannot be developed through the public participation and have not been developed by the watershed stakeholders.

LACo must revise and recirculate the NOP.

LACo must include a thorough description of Purposes and Needs for the project, quantification of such P&Ns, detailed quantified analyses as to how the Program achieves such P&Ns, basis for development of other alternative programs and projects within each alternative, and an assessment as to the best available alternative.

Some prospective alternatives include:

Single parcel fee assessment for 20-plus year full Administration, O&M and replacements;
Parcel-Area fee assessment for 20-plus year full Administration, O&M and replacements;
Hybrid Parcel-Area/Runoff fee assessment for 20-plus year full Administration, O&M and replacements;
Zero-Parcel Discharge Assessment and fee adjustment for 20-plus year full Administration, O&M and replacements;
Large-Parcel and Large Discharge Assessment and fee increments for 20-plus year full Administration, O&M and replacements;
Full capture and recharge of flows of >100cfs from all waterways;

1-9 Mitigation Monitoring and Report Plan The Draft Programmatic Environmental Impact Reports must include draft plans for the implementation, monitoring, and enforcements of the Mitigation Monitoring, and Reporting Plan for the Program. Also the PDEIR and draft Programmatic MMR Plan must provide the descriptions and process for funding, staffing, means, monitoring, enforcement, and reporting for the public for the monitoring of all Project-Level activities and compliance which must be subject to noticing/subscriptions, public reviews, and comment as part of the project-DEIR processes and not wait until the "Final EIR" is circulated for projects.

1-10 Scoping Report Because of the poor development of the NOP/IS and lack of coordination between the LACo efforts and those projected for the individual Project DEIRs and dispersed responsibilities for compliance and responsibilities, following the October 29th deadline for these comments, we request that LACo recirculate the entire NOP/IS, and if not done issue a Scoping Report ass to the LACo responses to comments and the table of contents for the PDEIR in order to establish the level of incorporation provided for the Scoping comments herein.

1-11 As indicated elsewhere many terms have been used and will be used inconsistently in the NOP/IS and Scoping Presentation and has created confusion and such must be avoided in the PDEIR.

The PDEIR must contain a single glossary and set of definitions for all terms for the PDEIR, and preparers and editors must assure full and specific compliance and consistency for all usage. Such a glossary may be included as an appendix with proper references throughout the PDEIR.

1-12 Program Compliance and Monitoring The LACo, Department of Public Works, Flood Control District is assumed to be in charge of the EWMP Program and has 12 groups responsible for specific areas and is related to the Los Angeles Regional Water Quality Control Board through the MS4 permit and sub-permits for water quality and flows within the Program regional and

area watersheds. No formal agreement has been presented as part of the NOP/IS and discussion seems to differ between the NOP/IS and the Scoping Presentation. As the LACFCD is scoping the PDEIR, reviewers must assume that only the LACo shall answer to the LARWQCB for compliance and monitoring for the next 20 years and that LACo shall have the powers, staffing, expertise, and funding to assure compliance of 12 different agencies/sub-permittees.

The Program description of the PDEIR must clearly and concisely present the administrative and operational arrangement and oversight assurance mechanisms to achieve implementation of all aspects of the MS4 permit and sub-permits and any and all CEQA and MS4 permit terms, conditions, mitigations, and compensations which may be related the Program and its projects. All contractual, regulatory, and judicial records must be provided as appendices and referenced within the text.

1-13 During a 20+ year Program, Implementation and Enforcement of all elements for 12+ different plans represent a major quality control/assurance and management and must be provided with adequate enforcement capabilities and support. The LACo, Department of Public Works, Flood Control District is assumed to be in charge of the EWMP Program and has 12 groups responsible for implementation, completion, and enforcement activities related to but in addition to those of the Los Angeles Regional Water Quality Control Board through the MS4 permit and sub-permits for water quality and flows within the Program regional and area watersheds.

No formal management and enforcement agreement has been presented as part of the NOP/IS and the Scoping Presentation. As the LACFCD is scoping the PDEIR, reviewers must assume that only the LACo shall answer to the LARWQCB for implementation and enforcements for the next 20 years and that LACo shall have the powers, staffing, expertise, and funding to assure implementation and enforcement with 12 different agencies/sub-permittees.

Fundamentally, will LACFCD or LARWQCB assess penalties against the sub-permittees for lack of timely implementation, achievement, and penalties.

The Program description of the PDEIR must clearly and concisely present the administrative and operational arrangement and quality-controls/assurance processes to achieve initiation and completion of all aspects of the MS4 permit and sub-permits and assignment of penalties , both financial and organizational for any and all CEQA and MS4 permits which may be related the Program and its projects. The LACFCD must also have the specific powers to assume direct authority over any projects under its responsibilities to the LARWQCB, and such must be documented within the PDEIR and PFEIR as appendices and referenced within the text

Environmental Sectors

2-1 No mention is made of "wetlands" which are often not included under either riparian (trees and bushes with dry land beneath) or aquatic habitats (open and standing water). Although this is one of the few specific habitats with federal and special protections, it is not mentioned which indicates the lack of background on the preparers part or a specific avoidance of controversial issues. The current NOP/IS lack competence, adequacy, and completeness for the public and stakeholder to review and comment upon the scope and specificity requireed for the PDEIR and subsequent PjDEIRs.

Revise and recirculate the entire NOP/IS and related documents.

The recirculation NOP/IS and the PDEIR must contain a general map of the Program and area maps for each of the projects with the following:
all existing delineated riparian, wetlands, and aquatic habitats;
related existing upstream and adjacent infiltration, recharge, and liquefaction areas;
potential groundwater movement patterns for 1500ft upstream and downstream of wetlands and riparian habitats; and
current surface water flows for 1500ft upstream and downstream of wetlands and riparian habitats.

12/4 **Biological Resources** Implementation of the EWMP projects could occur within existing sensitive habitats...result in changes to wildlife habitat, disruption of natural movement corridors, fragmentation or isolation of wildlife habitats, and disturbance of sensitive species during construction or operation...could alter **riparian and aquatic habitats**. The PEIR will evaluate the

potential for such facilities to impact biological resources and will also discuss local ordinances and state and federal regulations governing biological resources.

2-2 Geology and Groundwater Slight mention is made of groundwater, infiltration, recharge, and related liquefaction although much of the stormwater reduction must depend upon groundwater storage of captured runoff. The General Plan has not specific policies regarding changing the entire groundwater regime by massive expansion of septic tank/leach field system in another LACo project (i.e., Hauled Water Initiative) and this Programs LID and related recharge systems.

No information has been provided as to where recharge/infiltration areas are in relation to liquefaction zones and their drier extensions of alluvium and other permeable soils and bedrock.

The recirculation NOP/IS and the PDEIR must contain a general map of the Program and area maps for each of the projects with the following:

All geologically potential recharge/infiltration areas, existing recharging project, and proposed recharging areas and of all areas with more than 10 septic tanks per any 100 acres;

Currently delineated liquefaction areas and geologically similar surface materials which are not now considered as liquefiable due to lack of high groundwater tables;

Known groundwater levels and elevations of stream beds downslope of the groundwater tables; and

Anticipated local and project recharging rates.

12/6 5. Geology, Soils, and Seismicity Southern Los Angeles County is a seismically active region. The proposed EWMP BMPs would require **construction** of structural BMPs that could be subject to potential seismic and geologic hazards, including 13/1 ground shaking, **liquefaction**, soil stability conditions, soil erosion rates, expansive soils, and landslides. Policies provided in the County's General Plan and applicable standard County requirements will be evaluated as to their effect of **mitigating or avoiding any potentially significant effects.**...

13/4 Hydrology and Water Quality Implementation of the proposed EWMP BMPs may change **local drainage patterns at construction sites**,...which could affect the hydrology, hydraulics, and/or water quality of streams, rivers, and other receiving waters...The PEIR also will evaluate potential impacts to flood control capacity and develop mitigation strategies if necessary to avoid significant impacts.

13/5 Implementation of the proposed EWMP BMPs would likely result in **increased infiltration and recharge** in various locations throughout the EWMP watersheds. **Such activities could affect local groundwater levels and water quality**. The PEIR will evaluate potential effects of **increased storm water recharge** and will identify mitigation measures if necessary to ensure that potentially necessary significant impacts are reduced or avoided.

2-3 Hazards and Groundwater Recharge No mention is made regarding the influence of groundwater movements upon hazards and hazardous materials in the soil/alluvium/bedrock context. Groundwater plumes have cause major expansions of underground contamination from storage tanks and contaminated soil. Contaminated groundwater in the northeastern and western San Fernando Valley and elsewhere are known to be migrating based on the groundwater flows and basin pumping for water supplies.

Current LACo policies do not reflect the responsibilities and liabilities of LACo approved watershed plans causing the changes of hazardous materials migration induced by groundwater flows fed by LACo and agency approved recharge/infiltration projects.

No information has been provided as to where recharge/infiltration areas, groundwater flows, and known or expected contaminated groundwater and soils, and potential routes for plume migration through extensions of alluvium and other permeable soils and bedrock.

The recirculation NOP/IS and the PDEIR must contain a general map of the Program and projects' area maps with the following:

Known subsurface contaminated soils and groundwater and active remediation sites;

Known pump/treat/use or pump/treat/recharge projects;

Current and expected recharge/infiltration areas; and

Known/Expected groundwater migration pathways.

13/3 **Hazards and Hazardous Materials** Excavation during construction of proposed EWMP BMPs could uncover **contaminated soils or hazardous substances** that pose a substantial hazard

to human health or the environment...The policies provided in the County's General Plan and any standard County requirements will be evaluated as to their effect of mitigating or avoiding any potentially significant effects.

2-4 Socioeconomics (including Total and Disposal Incomes, Employment, Existing Infrastructure Costs, and Property and Other Revenues)

No information has been provided as to any socioeconomic setting, effects, and mitigation for the program or the projects.

The recirculation NOP/IS and the PDEIR must contain an overall socioeconomic review of the Program area and separate project area for each of the projects with the following:

- ***Educational, employment, age/gender, and other socioeconomic parameters to characterize the areas for the Program and its projects;***
- ***Incomes, Current Taxes and Fees, and other Ability-To-Pay parameters to characterize the areas for the Program and its projects;***
- ***Existing Special Assessment Districts and Other Urban Costs for Local Residents and Property Owners for the Program's and its projects' areas; and***
- ***State and conditions of existing infrastructure and potential for major future projects in the same Program's and its projects' areas.***

2-5 "Environmental Justice" No information has been provided as to any information regarding the setting, effects, and mitigation for the program or the projects related to issues of Environmental Justice.

The recirculation NOP/IS and the PDEIR must contain an overall and specific projects' Environmental Justice review of the similar major infrastructure programs and projects as related to those receiving benefits and those experiencing adverse effects directly through water-related operations and indirectly through direct/indirect payments for such effects and prospective benefits for those with much largely parcels and incomes.

2-6 Mitigation Monitoring and Reporting Plan The Draft Programmatic and Draft Project Environmental Impact Reports must include tiered draft plans for the implementation, monitoring, and enforcements of the Mitigation Monitoring, and Reporting Plan which will be subject to public review and comment as part of the DEIR processes and not wait until the "Final EIR" is circulated.

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Edmund G. Brown Jr.
Governor

Ken Alex
Director

Notice of Preparation

August 29, 2014

To: Reviewing Agencies

Re: Enhanced Watershed Management Programs (EWMP) Program EIR
SCH# 2014081106

Attached for your review and comment is the Notice of Preparation (NOP) for the Enhanced Watershed Management Programs (EWMP) Program EIR draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Gregg BeGell
Los Angeles County Flood Control District
900 South Fremont Avenue, 11th Floor
Alhambra, CA 91803

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2014081106
Project Title Enhanced Watershed Management Programs (EWMP) Program EIR
Lead Agency Los Angeles County Flood Control District

Type NOP Notice of Preparation

Description The development of the EWMP will involve the evaluation and selection of multiple watershed control measures or best management practices (BMP) types including non-structural and distributed, centralized and regional structural BMPs. These BMPs will be implemented to meet compliance goals and strategies under the 2014 MS4 Permit. Structural BMPs involve the construction of a physical control measure to alter the hydrology and/or water quality of incoming stormwater or non-stormwater. The three major functions for structural BMPs are infiltration, water quality treatment, and storage. These are three categories of structural BMPs, defined by the runoff area treated by the BMP and the required retention volume in accordance with the Permit.

Lead Agency Contact

Name Gregg BeGell
Agency Los Angeles County Flood Control District
Phone 626 300 3298 **Fax**
email
Address 900 South Fremont Avenue, 11th Floor
City Alhambra **State** CA **Zip** 91803

Project Location

County Los Angeles
City Los Angeles, City of
Region
Cross Streets Throughout Los Angeles County
Lat / Long
Parcel No. Various
Township **Range** **Section** **Base**

Proximity to:

Highways Various
Airports LAX, Burbank
Railways Various
Waterways Various
Schools Various
Land Use Various land uses throughout the County

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Flood Plain/Flooding; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Soil Erosion/Compaction/Grading; Toxic/Hazardous; Traffic/Circulation; Water Quality; Vegetation; Water Supply; Wetland/Riparian; Wildlife; Cumulative Effects; Other Issues

Reviewing Agencies Resources Agency; Coachella Valley Mountains Conservancy; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Wildlife, Headquarters; Department of Fish and Wildlife, Marine Region; Native American Heritage Commission; Santa Monica Bay Restoration; Caltrans, District 7; Air Resources Board; State Water Resources Control Board, Division of Water Quality; State Water Resources Control Board, Division of Water Rights; Regional Water Quality Control Board, Region 4; San Gabriel & Lower Los Angeles Rivers & Mountains Conservancy; Santa Monica Mountains Conservancy

Date Received 08/29/2014 **Start of Review** 08/29/2014 **End of Review** 09/29/2014

NOP Distribution List

County: LOS ANGELES

SCH# 2014081106

Resources Agency

- [■] **Resources Agency**
  Nadell Gayou
- [ ] **Dept. of Boating & Waterways**
  Nicole Wong
- [▨] **California Coastal Commission**
  Elizabeth A. Fuchs
- [ ] **Colorado River Board**
  Lisa Johansen
- [ ] **Dept. of Conservation**
  Elizabeth Carpenter
- [ ] **California Energy Commission**
  Eric Knight
- [ ] **Cal Fire**
  Dan Foster
- [ ] **Central Valley Flood Protection Board**
  James Herota
- [ ] **Office of Historic Preservation**
  Ron Parsons
- [■] **Dept of Parks & Recreation**
  Environmental Stewardship Section
- [ ] **California Department of Resources, Recycling & Recovery**
  Sue O'Leary
- [ ] **S.F. Bay Conservation & Dev't. Comm.**
  Steve McAdam
- [▨] **Dept. of Water Resources**
  Resources Agency
  Nadell Gayou

Fish and Game

- [▨] **Depart. of Fish & Wildlife**
  Scott Flint
  Environmental Services Division
- [ ] **Fish & Wildlife Region 1**
  Donald Koch
- [ ] **Fish & Wildlife Region 1E**
  Laurie Harnsberger
- [ ] **Fish & Wildlife Region 2**
  Jeff Drongesen
- [ ] **Fish & Wildlife Region 3**
  Charles Armor
- [ ] **Fish & Wildlife Region 4**
  Julie Vance
- [ ] **Fish & Wildlife Region 5**
  Leslie Newton-Reed
  Habitat Conservation Program
- [ ] **Fish & Wildlife Region 6**
  Tiffany Ellis
  Habitat Conservation Program
- [ ] **Fish & Wildlife Region 6 I/M**
  Heidi Sickler
  Inyo/Mono, Habitat Conservation Program
- [▨] **Dept. of Fish & Wildlife M**
  George Isaac
  Marine Region

Other Departments

- [ ] **Food & Agriculture**
  Sandra Schubert
  Dept. of Food and Agriculture
- [ ] **Depart. of General Services**
  Public School Construction
- [ ] **Dept. of General Services**
  Anna Garbeff
  Environmental Services Section
- [ ] **Delta Stewardship Council**
  Kevan Samsam

Independent Commissions,Boards

- [ ] **Delta Protection Commission**
  Michael Machado
- [ ] **OES (Office of Emergency Services)**
  Dennis Castrillo
- [■] **Native American Heritage Comm.**
  Debbie Treadway
- [ ] **Public Utilities Commission**
  Leo Wong
- [▨] **Santa Monica Bay Restoration**
  Guangyu Wang
- [ ] **State Lands Commission**
  Jennifer Deleong
- [ ] **Tahoe Regional Planning Agency (TRPA)**
  Cherry Jacques

Business, Trans & Housing

- [ ] **Caltrans - Division of Aeronautics**
  Philip Crimmins
- [ ] **Caltrans - Planning**
  Terri Pencovic
- [ ] **California Highway Patrol**
  Suzann Ikeuchi
  Office of Special Projects
- [ ] **Housing & Community Development**
  CEQA Coordinator
  Housing Policy Division

Dept. of Transportation

- [ ] **Caltrans, District 1**
  Rex Jackman
- [ ] **Caltrans, District 2**
  Marcelino Gonzalez
- [ ] **Caltrans, District 3**
  Eric Federicks – South
  Susan Zanchi - North
- [ ] **Caltrans, District 4**
  Erik Alm
- [ ] **Caltrans, District 5**
  David Murray
- [ ] **Caltrans, District 6**
  Michael Navarro
- [▨] **Caltrans, District 7**
  Dianna Watson
- [ ] **Caltrans, District 8**
  Dan Kopulsky
- [ ] **Caltrans, District 9**
  Gayle Rosander
- [ ] **Caltrans, District 10**
  Tom Dumas
- [ ] **Caltrans, District 11**
  Jacob Armstrong
- [ ] **Caltrans, District 12**
  Maureen El Harake

Cal EPA

Air Resources Board

- [■] All Other Projects
  Cathi Slaminski
  - [ ] Transportation Projects
    Nesamani Kalandiyur
  - [ ] Industrial Projects
    Mike Tollstrup
- [ ] **State Water Resources Control Board**
  Regional Programs Unit
  Division of Financial Assistance
- [ ] **State Water Resources Control Board**
  Jeffery Werth
  Division of Drinking Water
- [▨] **State Water Resources Control Board**
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- [▨] **State Water Resouces Control Board**
  Phil Crader
  Division of Water Rights
- [ ] **Dept. of Toxic Substances Control**
  CEQA Tracking Center
- [ ] **Department of Pesticide Regulation**
  CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

- [ ] **RWQCB 1**
  Cathleen Hudson
  North Coast Region (1)
- [ ] **RWQCB 2**
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- [ ] **RWQCB 3**
  Central Coast Region (3)
- [▨] **RWQCB 4**
  Teresa Rodgers
  Los Angeles Region (4)
- [ ] **RWQCB 5S**
  Central Valley Region (5)
  - [ ] **RWQCB 5F**
    Central Valley Region (5)
    Fresno Branch Office
  - [ ] **RWQCB 5R**
    Central Valley Region (5)
    Redding Branch Office
- [ ] **RWQCB 6**
  Lahontan Region (6)
  - [ ] **RWQCB 6V**
    Lahontan Region (6)
    Victorville Branch Office
- [ ] **RWQCB 7**
  Colorado River Basin Region (7)
- [ ] **RWQCB 8**
  Santa Ana Region (8)
- [ ] **RWQCB 9**
  San Diego Region (9)

- [ ] **Other** SAN GABRIEL AND LA RIVER WATERSHED CONSERVANCY
- [▨] ~~LAC~~ SANTA MONICA MTNS Conservancy

Last Updated 8/27/2014

Appendix C
CalEEMod Air Quality Data

ESA

Centralized BMP

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	10.00	435,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2015
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 2ac, 2,000 sq. feet

Construction Phase - correct days/ratios

Off-road Equipment - Equipment for Blding Const

Off-road Equipment - Eqipment for Grading

Off-road Equipment - Equipment for Site Prep

Grading - ac. disturbed

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	33.00
tblConstructionPhase	NumDays	20.00	17.00

tblConstructionPhase	NumDays	10.00	16.00
tblGrading	AcresOfGrading	17.00	10.00
tblGrading	AcresOfGrading	0.00	10.00
tblGrading	MaterialExported	0.00	45,173.00
tblLandUse	LandUseSquareFeet	0.00	435,600.00
tblLandUse	LotAcreage	0.00	10.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	3.00
tblProjectCharacteristics	OperationalYear	2014	2015

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	12.3264	165.4322	117.0269	0.2835	18.9218	4.8885	23.8103	8.3619	4.4971	12.8590	0.0000	28,945.2292	28,945.2292	1.3553	0.0000	28,973.6910
Total	**12.3264**	**165.4322**	**117.0269**	**0.2835**	**18.9218**	**4.8885**	**23.8103**	**8.3619**	**4.4971**	**12.8590**	**0.0000**	**28,945.2292**	**28,945.2292**	**1.3553**	**0.0000**	**28,973.6910**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	12.3264	165.4322	117.0269	0.2835	11.7891	4.8885	16.6776	4.6586	4.4971	9.1557	0.0000	28,945.2292	28,945.2292	1.3553	0.0000	28,973.6910
Total	**12.3264**	**165.4322**	**117.0269**	**0.2835**	**11.7891**	**4.8885**	**16.6776**	**4.6586**	**4.4971**	**9.1557**	**0.0000**	**28,945.2292**	**28,945.2292**	**1.3553**	**0.0000**	**28,973.6910**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**37.70**	**0.00**	**29.96**	**44.29**	**0.00**	**28.80**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.3906	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**11.3906**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.3906	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**11.3906**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/1/2015	4/22/2015	5	16	
2	Grading	Grading	4/23/2015	5/15/2015	5	17	
3	Building Construction	Building Construction	5/16/2015	7/1/2015	5	33	

Acres of Grading (Site Preparation Phase): 10

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Excavators	2	6.00	162	0.38
Site Preparation	Other General Industrial Equipment	1	8.00	87	0.34
Site Preparation	Rubber Tired Dozers	0	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Excavators	0	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	0	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	0	7.00	226	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	5,647.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	183.00	71.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6628	0.0000	0.6628	0.0716	0.0000	0.0716			0.0000			0.0000
Off-Road	2.1028	20.9856	14.5647	0.0198		1.4545	1.4545		1.3381	1.3381		2,081.4286	2,081.4286	0.6214		2,094.4779
Total	**2.1028**	**20.9856**	**14.5647**	**0.0198**	**0.6628**	**1.4545**	**2.1173**	**0.0716**	**1.3381**	**1.4097**		**2,081.4286**	**2,081.4286**	**0.6214**		**2,094.4779**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0951	0.9938	1.9900e-003	0.1677	1.4800e-003	0.1691	0.0445	1.3500e-003	0.0458		173.3466	173.3466	9.9400e-003		173.5553
Total	**0.0709**	**0.0951**	**0.9938**	**1.9900e-003**	**0.1677**	**1.4800e-003**	**0.1691**	**0.0445**	**1.3500e-003**	**0.0458**		**173.3466**	**173.3466**	**9.9400e-003**		**173.5553**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Fugitive Dust					0.2983	0.0000	0.2983	0.0322	0.0000	0.0322			0.0000			0.0000
Off-Road	2.1028	20.9856	14.5647	0.0198		1.4545	1.4545		1.3381	1.3381	0.0000	2,081.4286	2,081.4286	0.6214		2,094.4779
Total	**2.1028**	**20.9856**	**14.5647**	**0.0198**	**0.2983**	**1.4545**	**1.7528**	**0.0322**	**1.3381**	**1.3704**	**0.0000**	**2,081.4286**	**2,081.4286**	**0.6214**		**2,094.4779**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0951	0.9938	1.9900e-003	0.1677	1.4800e-003	0.1691	0.0445	1.3500e-003	0.0458		173.3466	173.3466	9.9400e-003		173.5553
Total	**0.0709**	**0.0951**	**0.9938**	**1.9900e-003**	**0.1677**	**1.4800e-003**	**0.1691**	**0.0445**	**1.3500e-003**	**0.0458**		**173.3466**	**173.3466**	**9.9400e-003**		**173.5553**

3.3 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.9685	0.0000	12.9685	6.7333	0.0000	6.7333			0.0000			0.0000
Off-Road	5.3907	57.3739	36.7654	0.0365		3.1019	3.1019		2.8538	2.8538		3,836.9708	3,836.9708	1.1455		3,861.0263
Total	**5.3907**	**57.3739**	**36.7654**	**0.0365**	**12.9685**	**3.1019**	**16.0704**	**6.7333**	**2.8538**	**9.5871**		**3,836.9708**	**3,836.9708**	**1.1455**		**3,861.0263**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.8648	107.9632	79.2677	0.2451	5.7856	1.7851	7.5707	1.5842	1.6420	3.2261		24,934.9118	24,934.9118	0.1999		24,939.1094
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0951	0.9938	1.9900e-003	0.1677	1.4800e-003	0.1691	0.0445	1.3500e-003	0.0458		173.3466	173.3466	9.9400e-003		173.5553
Total	**6.9357**	**108.0583**	**80.2615**	**0.2470**	**5.9533**	**1.7866**	**7.7399**	**1.6286**	**1.6433**	**3.2719**		**25,108.2583**	**25,108.2583**	**0.2098**		**25,112.6648**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.8358	0.0000	5.8358	3.0300	0.0000	3.0300			0.0000			0.0000
Off-Road	5.3907	57.3739	36.7654	0.0365		3.1019	3.1019		2.8538	2.8538	0.0000	3,836.9708	3,836.9708	1.1455		3,861.0263
Total	**5.3907**	**57.3739**	**36.7654**	**0.0365**	**5.8358**	**3.1019**	**8.9377**	**3.0300**	**2.8538**	**5.8837**	**0.0000**	**3,836.9708**	**3,836.9708**	**1.1455**		**3,861.0263**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day											lb/day				
Hauling	6.8648	107.9632	79.2677	0.2451	5.7856	1.7851	7.5707	1.5842	1.6420	3.2261		24,934.9118	24,934.9118	0.1999		24,939.1094
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0951	0.9938	1.9900e-003	0.1677	1.4800e-003	0.1691	0.0445	1.3500e-003	0.0458		173.3466	173.3466	9.9400e-003		173.5553
Total	**6.9357**	**108.0583**	**80.2615**	**0.2470**	**5.9533**	**1.7866**	**7.7399**	**1.6286**	**1.6433**	**3.2719**		**25,108.2583**	**25,108.2583**	**0.2098**		**25,112.6648**

3.4 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4820	25.4773	18.6212	0.0269		1.9712	1.9712		1.8869	1.8869		2,633.9358	2,633.9358	0.5358		2,645.1874
Total	**3.4820**	**25.4773**	**18.6212**	**0.0269**		**1.9712**	**1.9712**		**1.8869**	**1.8869**		**2,633.9358**	**2,633.9358**	**0.5358**		**2,645.1874**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7370	7.1583	9.1286	0.0154	0.4436	0.1221	0.5657	0.1263	0.1123	0.2386		1,553.3543	1,553.3543	0.0127		1,553.6200
Worker	0.8645	1.1604	12.1246	0.0243	2.0455	0.0180	2.0635	0.5425	0.0165	0.5590		2,114.8280	2,114.8280	0.1213		2,117.3749

Total	**1.6015**	**8.3187**	**21.2532**	**0.0397**	**2.4891**	**0.1401**	**2.6292**	**0.6688**	**0.1288**	**0.7976**		**3,668.1823**	**3,668.1823**	**0.1339**		**3,670.9949**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4820	25.4773	18.6212	0.0269		1.9712	1.9712		1.8869	1.8869	0.0000	2,633.9358	2,633.9358	0.5358		2,645.1874
Total	**3.4820**	**25.4773**	**18.6212**	**0.0269**		**1.9712**	**1.9712**		**1.8869**	**1.8869**	**0.0000**	**2,633.9358**	**2,633.9358**	**0.5358**		**2,645.1874**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7370	7.1583	9.1286	0.0154	0.4436	0.1221	0.5657	0.1263	0.1123	0.2386		1,553.3543	1,553.3543	0.0127		1,553.6200
Worker	0.8645	1.1604	12.1246	0.0243	2.0455	0.0180	2.0635	0.5425	0.0165	0.5590		2,114.8280	2,114.8280	0.1213		2,117.3749
Total	**1.6015**	**8.3187**	**21.2532**	**0.0397**	**2.4891**	**0.1401**	**2.6292**	**0.6688**	**0.1288**	**0.7976**		**3,668.1823**	**3,668.1823**	**0.1339**		**3,670.9949**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.515437	0.060435	0.179988	0.139880	0.041945	0.006639	0.015487	0.028746	0.001918	0.002517	0.004333	0.000596	0.002079

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	11.3906	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	11.3906	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.7658					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.6249					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**11.3906**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.7658					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.6249					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**11.3906**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Distributed BMP

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	2.00	87,120.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2015
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 2ac, 2,000 sq. feet

Construction Phase - correct days/ratios

Off-road Equipment - Equipment for Blding Const

Off-road Equipment - Eqipment for Grading

Off-road Equipment - Equipment for Site Prep

Grading - ac. disturbed

Construction Off-road Equipment Mitigation -

Trips and VMT - VMT trips reduced

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Interior	130680	3000

tblConstructionPhase	NumDays	200.00	14.00
tblConstructionPhase	NumDays	2.00	5.00
tblGrading	AcresOfGrading	1.00	2.00
tblGrading	AcresOfGrading	0.00	2.00
tblGrading	MaterialExported	0.00	9,000.00
tblLandUse	LandUseSquareFeet	0.00	87,120.00
tblLandUse	LotAcreage	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblProjectCharacteristics	OperationalYear	2014	2015
tblTripsAndVMT	HaulingTripNumber	1,125.00	989.00
tblTripsAndVMT	VendorTripNumber	14.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	6.6754	96.4709	69.9358	0.1942	8.1916	2.2393	10.4309	2.9538	2.0599	5.0137	0.0000	19,775.3226	19,775.3226	0.4893	0.0000	19,785.5988
Total	**6.6754**	**96.4709**	**69.9358**	**0.1942**	**8.1916**	**2.2393**	**10.4309**	**2.9538**	**2.0599**	**5.0137**	**0.0000**	**19,775.3226**	**19,775.3226**	**0.4893**	**0.0000**	**19,785.5988**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	6.6754	96.4709	69.9358	0.1942	6.1039	2.2393	8.3432	1.9908	2.0599	4.0507	0.0000	19,775.3226	19,775.3226	0.4893	0.0000	19,785.5988
Total	**6.6754**	**96.4709**	**69.9358**	**0.1942**	**6.1039**	**2.2393**	**8.3432**	**1.9908**	**2.0599**	**4.0507**	**0.0000**	**19,775.3226**	**19,775.3226**	**0.4893**	**0.0000**	**19,785.5988**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**25.49**	**0.00**	**20.01**	**32.60**	**0.00**	**19.21**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Area	1.8728	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.8728**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.8728	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.8728**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/1/2015	3/6/2015	5	5	
2	Grading	Grading	3/7/2015	3/12/2015	5	4	

3	Building Construction	Building Construction	3/13/2015	4/1/2015	5	14	

Acres of Grading (Site Preparation Phase): 2

Acres of Grading (Grading Phase): 2

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Excavators	1	8.00	162	0.38
Site Preparation	Graders	0	8.00	174	0.41
Site Preparation	Other General Industrial Equipment	1	8.00	87	0.34
Site Preparation	Scrapers	0	8.00	361	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Graders	1	4.00	174	0.41
Grading	Rubber Tired Dozers	1	4.00	255	0.40
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	0	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	989.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	37.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4242	0.0000	0.4242	0.0458	0.0000	0.0458			0.0000			0.0000
Off-Road	1.0837	10.8309	7.3875	0.0102		0.7300	0.7300		0.6716	0.6716		1,066.8039	1,066.8039	0.3185		1,073.4921
Total	**1.0837**	**10.8309**	**7.3875**	**0.0102**	**0.4242**	**0.7300**	**1.1542**	**0.0458**	**0.6716**	**0.7174**		**1,066.8039**	**1,066.8039**	**0.3185**		**1,073.4921**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0378	0.0507	0.5300	1.0600e-003	0.0894	7.9000e-004	0.0902	0.0237	7.2000e-004	0.0244		92.4515	92.4515	5.3000e-003		92.5628
Total	**0.0378**	**0.0507**	**0.5300**	**1.0600e-003**	**0.0894**	**7.9000e-004**	**0.0902**	**0.0237**	**7.2000e-004**	**0.0244**		**92.4515**	**92.4515**	**5.3000e-003**		**92.5628**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1909	0.0000	0.1909	0.0206	0.0000	0.0206			0.0000			0.0000
Off-Road	1.0837	10.8309	7.3875	0.0102		0.7300	0.7300		0.6716	0.6716	0.0000	1,066.8039	1,066.8039	0.3185		1,073.4921
Total	**1.0837**	**10.8309**	**7.3875**	**0.0102**	**0.1909**	**0.7300**	**0.9209**	**0.0206**	**0.6716**	**0.6922**	**0.0000**	**1,066.8039**	**1,066.8039**	**0.3185**		**1,073.4921**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0378	0.0507	0.5300	1.0600e-003	0.0894	7.9000e-004	0.0902	0.0237	7.2000e-004	0.0244		92.4515	92.4515	5.3000e-003		92.5628
Total	**0.0378**	**0.0507**	**0.5300**	**1.0600e-003**	**0.0894**	**7.9000e-004**	**0.0902**	**0.0237**	**7.2000e-004**	**0.0244**		**92.4515**	**92.4515**	**5.3000e-003**		**92.5628**

3.3 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Fugitive Dust					3.7957	0.0000	3.7957	1.7509	0.0000	1.7509			0.0000			0.0000
Off-Road	1.5279	16.0596	10.4042	0.0107		0.9098	0.9098		0.8370	0.8370		1,122.9865	1,122.9865	0.3353		1,130.0270
Total	**1.5279**	**16.0596**	**10.4042**	**0.0107**	**3.7957**	**0.9098**	**4.7055**	**1.7509**	**0.8370**	**2.5879**		**1,122.9865**	**1,122.9865**	**0.3353**		**1,130.0270**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.1097	80.3606	59.0016	0.1824	4.3064	1.3287	5.6351	1.1791	1.2222	2.4013		18,559.8845	18,559.8845	0.1488		18,563.0090
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0378	0.0507	0.5300	1.0600e-003	0.0894	7.9000e-004	0.0902	0.0237	7.2000e-004	0.0244		92.4515	92.4515	5.3000e-003		92.5628
Total	**5.1475**	**80.4113**	**59.5316**	**0.1835**	**4.3958**	**1.3295**	**5.7253**	**1.2029**	**1.2229**	**2.4258**		**18,652.3360**	**18,652.3360**	**0.1541**		**18,655.5718**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.7081	0.0000	1.7081	0.7879	0.0000	0.7879			0.0000			0.0000
Off-Road	1.5279	16.0596	10.4042	0.0107		0.9098	0.9098		0.8370	0.8370	0.0000	1,122.9865	1,122.9865	0.3353		1,130.0270
Total	**1.5279**	**16.0596**	**10.4042**	**0.0107**	**1.7081**	**0.9098**	**2.6179**	**0.7879**	**0.8370**	**1.6249**	**0.0000**	**1,122.9865**	**1,122.9865**	**0.3353**		**1,130.0270**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.1097	80.3606	59.0016	0.1824	4.3064	1.3287	5.6351	1.1791	1.2222	2.4013		18,559.8845	18,559.8845	0.1488		18,563.0090
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0378	0.0507	0.5300	1.0600e-003	0.0894	7.9000e-004	0.0902	0.0237	7.2000e-004	0.0244		92.4515	92.4515	5.3000e-003		92.5628
Total	**5.1475**	**80.4113**	**59.5316**	**0.1835**	**4.3958**	**1.3295**	**5.7253**	**1.2029**	**1.2229**	**2.4258**		**18,652.3360**	**18,652.3360**	**0.1541**		**18,655.5718**

3.4 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0613	13.7974	10.4618	0.0150		1.0709	1.0709		1.0282	1.0282		1,442.0192	1,442.0192	0.3024		1,448.3690
Total	**2.0613**	**13.7974**	**10.4618**	**0.0150**		**1.0709**	**1.0709**		**1.0282**	**1.0282**		**1,442.0192**	**1,442.0192**	**0.3024**		**1,448.3690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day											lb/day				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1748	0.2346	2.4514	4.9100e-003	0.4136	3.6400e-003	0.4172	0.1097	3.3400e-003	0.1130		427.5882	427.5882	0.0245		428.1031
Total	**0.1748**	**0.2346**	**2.4514**	**4.9100e-003**	**0.4136**	**3.6400e-003**	**0.4172**	**0.1097**	**3.3400e-003**	**0.1130**		**427.5882**	**427.5882**	**0.0245**		**428.1031**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0613	13.7974	10.4618	0.0150		1.0709	1.0709		1.0282	1.0282	0.0000	1,442.0192	1,442.0192	0.3024		1,448.3690
Total	**2.0613**	**13.7974**	**10.4618**	**0.0150**		**1.0709**	**1.0709**		**1.0282**	**1.0282**	**0.0000**	**1,442.0192**	**1,442.0192**	**0.3024**		**1,448.3690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1748	0.2346	2.4514	4.9100e-003	0.4136	3.6400e-003	0.4172	0.1097	3.3400e-003	0.1130		427.5882	427.5882	0.0245		428.1031

Total	**0.1748**	**0.2346**	**2.4514**	**4.9100e-003**	**0.4136**	**3.6400e-003**	**0.4172**	**0.1097**	**3.3400e-003**	**0.1130**		**427.5882**	**427.5882**	**0.0245**		**428.1031**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.515437	0.060435	0.179988	0.139880	0.041945	0.006639	0.015487	0.028746	0.001918	0.002517	0.004333	0.000596	0.002079

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.8728	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	1.8728	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					

Architectural Coating	0.1478					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7250					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.8728**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1478					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7250					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.8728**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

Regional BMP

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	40.00	1,742,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2015
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 2ac, 2,000 sq. feet

Construction Phase - correct days/ratios

Off-road Equipment - Equipment for Blding Const

Off-road Equipment - Eqipment for Grading

Off-road Equipment - Equipment for Site Prep

Grading - ac. disturbed

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	740.00	65.00
tblConstructionPhase	NumDays	75.00	20.00

tblConstructionPhase	NumDays	30.00	25.00
tblConstructionPhase	PhaseEndDate	7/31/2015	8/1/2015
tblConstructionPhase	PhaseEndDate	4/3/2015	4/4/2015
tblGrading	AcresOfGrading	20.00	40.00
tblGrading	AcresOfGrading	0.00	40.00
tblGrading	MaterialExported	0.00	90,346.00
tblLandUse	LandUseSquareFeet	0.00	1,742,400.00
tblLandUse	LotAcreage	0.00	40.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	OperationalYear	2014	2015

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	18.5176	256.2670	184.4165	0.4654	30.7563	6.8767	37.6330	12.9892	6.3260	19.3151	0.0000	47,469.4995	47,469.4995	1.8018	0.0000	47,507.3371

Total	**18.5176**	**256.2670**	**184.4165**	**0.4654**	**30.7563**	**6.8767**	**37.6330**	**12.9892**	**6.3260**	**19.3151**	**0.0000**	**47,469.4995**	**47,469.4995**	**1.8018**	**0.0000**	**47,507.3371**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	18.5176	256.2670	184.4165	0.4654	19.3724	6.8767	26.2491	7.3588	6.3260	13.6848	0.0000	47,469.4995	47,469.4995	1.8018	0.0000	47,507.3371
Total	**18.5176**	**256.2670**	**184.4165**	**0.4654**	**19.3724**	**6.8767**	**26.2491**	**7.3588**	**6.3260**	**13.6848**	**0.0000**	**47,469.4995**	**47,469.4995**	**1.8018**	**0.0000**	**47,507.3371**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**37.01**	**0.00**	**30.25**	**43.35**	**0.00**	**29.15**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	45.5626	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Total	**45.5626**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	45.5626	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**45.5626**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/1/2015	4/4/2015	5	25	
2	Grading	Grading	4/5/2015	5/1/2015	5	20	
3	Building Construction	Building Construction	5/2/2015	8/1/2015	5	65	

Acres of Grading (Site Preparation Phase): 40

Acres of Grading (Grading Phase): 40

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Excavators	3	8.00	162	0.38
Site Preparation	Other General Industrial Equipment	3	8.00	87	0.34
Site Preparation	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	0	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Rubber Tired Dozers	3	8.00	255	0.40
Grading	Scrapers	0	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	3	6.00	97	0.37
Building Construction	Cranes	0	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	4	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	4	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	12	30.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	11,293.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	12	732.00	286.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					13.7410	0.0000	13.7410	6.8037	0.0000	6.8037			0.0000			0.0000
Off-Road	6.4281	67.2729	48.3602	0.0537		4.0026	4.0026		3.6824	3.6824		5,641.3776	5,641.3776	1.6842		5,676.7455
Total	**6.4281**	**67.2729**	**48.3602**	**0.0537**	**13.7410**	**4.0026**	**17.7436**	**6.8037**	**3.6824**	**10.4861**		**5,641.3776**	**5,641.3776**	**1.6842**		**5,676.7455**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1417	0.1902	1.9876	3.9800e-003	0.3353	2.9500e-003	0.3383	0.0889	2.7100e-003	0.0916		346.6931	346.6931	0.0199		347.1106
Total	**0.1417**	**0.1902**	**1.9876**	**3.9800e-003**	**0.3353**	**2.9500e-003**	**0.3383**	**0.0889**	**2.7100e-003**	**0.0916**		**346.6931**	**346.6931**	**0.0199**		**347.1106**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Fugitive Dust					6.1834	0.0000	6.1834	3.0617	0.0000	3.0617			0.0000			0.0000
Off-Road	6.4281	67.2729	48.3602	0.0537		4.0026	4.0026		3.6824	3.6824	0.0000	5,641.3776	5,641.3776	1.6842		5,676.7455
Total	**6.4281**	**67.2729**	**48.3602**	**0.0537**	**6.1834**	**4.0026**	**10.1861**	**3.0617**	**3.6824**	**6.7441**	**0.0000**	**5,641.3776**	**5,641.3776**	**1.6842**		**5,676.7455**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1417	0.1902	1.9876	3.9800e-003	0.3353	2.9500e-003	0.3383	0.0889	2.7100e-003	0.0916		346.6931	346.6931	0.0199		347.1106
Total	**0.1417**	**0.1902**	**1.9876**	**3.9800e-003**	**0.3353**	**2.9500e-003**	**0.3383**	**0.0889**	**2.7100e-003**	**0.0916**		**346.6931**	**346.6931**	**0.0199**		**347.1106**

3.3 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					20.6981	0.0000	20.6981	10.2371	0.0000	10.2371			0.0000			0.0000
Off-Road	6.7539	72.6190	48.3483	0.0462		3.8403	3.8403		3.5331	3.5331		4,852.7740	4,852.7740	1.4488		4,883.1979

Total	**6.7539**	**72.6190**	**48.3483**	**0.0462**	**20.6981**	**3.8403**	**24.5384**	**10.2371**	**3.5331**	**13.7701**		**4,852.7740**	**4,852.7740**	**1.4488**		**4,883.1979**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	11.6691	183.5212	134.7432	0.4166	9.8347	3.0344	12.8691	2.6928	2.7911	5.4839		42,385.5968	42,385.5968	0.3398		42,392.7321
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0945	0.1268	1.3251	2.6600e-003	0.2236	1.9700e-003	0.2255	0.0593	1.8000e-003	0.0611		231.1287	231.1287	0.0133		231.4071
Total	**11.7636**	**183.6480**	**136.0682**	**0.4192**	**10.0582**	**3.0364**	**13.0946**	**2.7521**	**2.7929**	**5.5450**		**42,616.7255**	**42,616.7255**	**0.3530**		**42,624.1392**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3142	0.0000	9.3142	4.6067	0.0000	4.6067			0.0000			0.0000
Off-Road	6.7539	72.6190	48.3483	0.0462		3.8403	3.8403		3.5331	3.5331	0.0000	4,852.7740	4,852.7740	1.4488		4,883.1979
Total	**6.7539**	**72.6190**	**48.3483**	**0.0462**	**9.3142**	**3.8403**	**13.1545**	**4.6067**	**3.5331**	**8.1398**	**0.0000**	**4,852.7740**	**4,852.7740**	**1.4488**		**4,883.1979**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	11.6691	183.5212	134.7432	0.4166	9.8347	3.0344	12.8691	2.6928	2.7911	5.4839		42,385.5968	42,385.5968	0.3398		42,392.7321
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0945	0.1268	1.3251	2.6600e-003	0.2236	1.9700e-003	0.2255	0.0593	1.8000e-003	0.0611		231.1287	231.1287	0.0133		231.4071
Total	**11.7636**	**183.6480**	**136.0682**	**0.4192**	**10.0582**	**3.0364**	**13.0946**	**2.7521**	**2.7929**	**5.5450**		**42,616.7255**	**42,616.7255**	**0.3530**		**42,624.1392**

3.4 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.4660	41.0093	29.6913	0.0444		3.1411	3.1411		3.0241	3.0241		4,326.9233	4,326.9233	0.7964		4,343.6475
Total	**5.4660**	**41.0093**	**29.6913**	**0.0444**		**3.1411**	**3.1411**		**3.0241**	**3.0241**		**4,326.9233**	**4,326.9233**	**0.7964**		**4,343.6475**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.9688	28.8349	36.7715	0.0619	1.7868	0.4919	2.2787	0.5088	0.4523	0.9611		6,257.1737	6,257.1737	0.0510		6,258.2440
Worker	3.4581	4.6417	48.4982	0.0972	8.1820	0.0720	8.2540	2.1699	0.0660	2.2359		8,459.3118	8,459.3118	0.4851		8,469.4996
Total	**6.4269**	**33.4766**	**85.2697**	**0.1591**	**9.9689**	**0.5639**	**10.5328**	**2.6787**	**0.5183**	**3.1970**		**14,716.4855**	**14,716.4855**	**0.5361**		**14,727.7437**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.4660	41.0093	29.6913	0.0444		3.1411	3.1411		3.0241	3.0241	0.0000	4,326.9233	4,326.9233	0.7964		4,343.6475
Total	**5.4660**	**41.0093**	**29.6913**	**0.0444**		**3.1411**	**3.1411**		**3.0241**	**3.0241**	**0.0000**	**4,326.9233**	**4,326.9233**	**0.7964**		**4,343.6475**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.9688	28.8349	36.7715	0.0619	1.7868	0.4919	2.2787	0.5088	0.4523	0.9611		6,257.1737	6,257.1737	0.0510		6,258.2440
Worker	3.4581	4.6417	48.4982	0.0972	8.1820	0.0720	8.2540	2.1699	0.0660	2.2359		8,459.3118	8,459.3118	0.4851		8,469.4996
Total	**6.4269**	**33.4766**	**85.2697**	**0.1591**	**9.9689**	**0.5639**	**10.5328**	**2.6787**	**0.5183**	**3.1970**		**14,716.4855**	**14,716.4855**	**0.5361**		**14,727.7437**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-...	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.515437	0.060435	0.179988	0.139880	0.041945	0.006639	0.015487	0.028746	0.001918	0.002517	0.004333	0.000596	0.002079

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	45.5626	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	45.5626	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	11.0631					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Consumer Products	34.4995					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**45.5626**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	11.0631					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	34.4995					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**45.5626**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Appendix D
Sensitive Natural Communities Descriptions

ESA

APPENDIX D
Sensitive Natural Communities Descriptions

California Walnut Woodland[1]

Description: Similar to and intergrading with Interior Live Oak Woodland or Coast Live Oak Woodland, but with a more open tree canopy dominated by *Juglans californica*. The open tree canopy allows development of a grassy understory. In most sites, this understory is composed of introduced winter-active annuals that complete most of their growth cycle before the deciduous *Juglans* leafs out in spring. *Site Factors*: On relatively moist, fine-textured soils of valley slopes and bottoms, as well as encircling rocky outcrops. These drier, rocky sites often support Venturan or Riversidian Sage Scrub. Intergrades with Coast Live Oak Woodland or Coast Live Oak Forest on more mesic sites, especially in canyons.

Characteristic Species: *Juglans californica, Quercus agrifolia, Q. engelmannii, Rhus ovata, R. trilobata,* [*Bromus rubens*],[*Marrubium vulgare*]

Distribution: South side of San Gabriel Mountains to the Santa Ana Mountains, mostly between 500 feet and 3,000 feet.

Canyon Live Oak Ravine Forest*

Description: Similar to Coast Live Oak Forest, but usually denser and not so tall. Dominated by *Quercus chrysolepis*, a broadleaved sclerophyll. Typically forms forests with little understory up to 20 m tall in canyons. Trees often with multiple trunks, probably from crown-sprouting after fires. Growing season from late spring into summer, similar to that of Lower Montane Coniferous Forests.

Site Factors: Transitional between low elevation broadleaved forests and higher elevation coniferous forests. On rocky, often steep slopes with little soil development. Typically in canyons and on north-facing slopes at relatively low elevations and on south-facing slopes at higher elevations. At higher elevations with colder winters than Mixed Evergreen Forest, Blue Oak Woodland, Coast Live Oak Forest or Californian Mixed Chaparral. Often adjacent to Montane Chaparral on dry slopes or lower Montane Coniferous Forest on less rocky soils. May intergrade with any of the above vegetation types and is not always distinct from them.

Characteristic Species: *Calocedrus decurrens, Lithocarpus densiflorus, Pinus coulteri* (Southern Coast Ranges), *Pseudotsuga menziesii, Quercus chrysolepis, Umbellularia californica*

[1] Descriptions taken from: Holland, R. F. 1986. Preliminary descriptions of the terrestrial natural communities of California. Unpublished report. State of California, The Resources Agency, Department of Fish and Game, Natural Heritage Division, Sacramento, California. Please note: Many species names have changed since the preparation of this document. Also, brackets denote species that are non-native.

Distribution: Inner Northern Coast Ranges from Siskiyou County to Lake County, Southern Coast Ranges from Mount Diablo to Monterey County. West slope of the Sierra Nevada from Tehama County to Kern County at elevations of 1,000 to 4,000 feet in the north and 3,000 to 6,000 feet in the south. Replaced by the closely related Bigcone Spruce-Canyon Oak Forest in the Transverse and Peninsular Ranges of Southern California.

Mainland Cherry Forest

Stands of hollyleaf cherry (*Prunus ilicifolia*) on steep, dry, north-facing slopes with rocky, sandstone-derived soils. Plants most often seen as shrubs, but may reach tree size. Stands with large trees are exceptional (California Native Plant Society).

Open Engelmann Oak Woodland*

Description: An evergreen woodland quite reminiscent of Blue Oak Woodland but dominated by *Quercus engelmannii* with an understory of typical "grassland" species.

Site Factors: Relatively moist sites on fine-textured soils of gentle slopes and valley bottoms. Intergrades with Venturan or Riversidean Sage Scrubs on drier, rockier sites, and with Dense Engelmann Oak Woodland on more mesic sites. Often surrounds grassland portreros, occupying the ecotone between the grassland (on fine-textured, deep soils) and surrounding shrub fields (on rockier, drier sites).

Characteristic Species: *Juglans californica, Quercus agrifolia, Q. engelmannii, Rhus ovata, R. trilobata*
Distribution: Mainly in the Santa Ana Mountains of San Diego and adjacent Riverside counties, usually below about 4,000 feet.

Riversidean Alluvial Fan Sage Scrub*

Description: This is the most xeric expression of Coastal Sage Scrub south of Point Conception. Typical stands are fairly open and dominated by *Artemisia californica, Eriogonum fasciculatum,* and [*Bromus rubens],* each attaining at least 20 percent cover.

Site Factors: Typically on xeric sites such as steep slopes, severely drained soils, or clays that released stored soil moisture only slowly. Intergrades at slightly higher elevations with several Southern Californian chaparrals.

Characteristic Species: *Artemisia californica, Atriplex canescens,* [*Bromus rubens*], *Encelia farinosa, Ericameria pinefolia, Eriodictyon crassifolium, Eriogonum fasciculatum, Gutierrezia californica, Ericameria linearifolia, Isomeris arboreus, Lotus scoparius, Malacothamnus fasciculatus, Salvia apiana, S. mellifera, Yucca whipplei parishii*

Distribution: Along the coastal base of the Transverse and Peninsular ranges from central Los Angeles County to the Mexican frontier.

Southern California Arroyo Chub/Santa Ana Sucker Stream

Streams used by arroyo chub (*Gila orcuttii*) and/or Santa Ana sucker (*Catostomus santaanae*).

Southern California Coastal Lagoon

Coastal lagoons in Southern California.

Southern California Threespine Stickleback Stream

Streams used by threespine stickleback (*Gasterosteus aculeatus*), typically slow-flowing waterways along the coast with emergent vegetation.

Southern Coast Live Oak Riparian Forest*

Description: Open to locally dense evergreen sclerophyllous riparian woodlands dominated by *Quercus agrifolia*. This type appears to be richer in herbs and poorer in understory shrubs than other riparian communities. Similar to and questionably distinct from Central Coast Live Oak Riparian Forest.

Site Factors: Bottomlands and outer floodplains along larger streams, on fine-grained, rich alluvium.

Characteristic species: *Acer macrophyllum, Artemisia douglasiana, Cardamine californica, Eucrypta chrysanthemifolia, Heteromeles arbutifolia, Keckiella cordifolia, Lonicera hispidula, Mara macrocarpus, Pholistoma auritum, Quercus agrifolia, Rhus trilobata, Rosa californica, Rubus ursinus, Sambucus Mexicana, Symphoricarpos mollis, Toxicodendron diversilobum, Umbellularia californica*
Distribution: Canyons and valleys of coastal Southern California, mostly south of Point Conception.

Southern Coastal Bluff Scrub*

Description: Similar to Northern Coastal Bluff Scrub (a low, often prostrate, scrub 5-50 cm high, forming continuous mats or more scattered. Dwarf shrubs, herbaceous perennials, and annuals are represented…), but plants less prostrate (up to 2 meters tall). Most plants woody and/or succulent. Most growth and flowering occur from late winter through spring.

Site Factors: Similar to Northern Coastal Bluff Scrub (exposed to nearly constant winds with high salt content; soil usually rocky and poorly developed), but conditions less extreme as a result of less intense but still moisture-laden winds. Intergrades in less exposed settings with Venturan Coastal Sage Scrub, or on finer-grained soils with Valley and Foothill Grassland.

Characteristic Species: *Atriplex* spp., *Calystegia cyclostegia, C. macrostegia, Castilleja affinis, Chorizanthe orcuttiana, Coreopsis gigantea, C. maritima, Dudleya* spp., *Encelia californica, Erigeron glaucus, Eriophyllum staechadifolium, Mesembryanthemum* sp., *Haploppappus* spp., *Malacothrix saxatilis, Marah macrocarpus*, [*Carpobrotus aequilateralus*], [*Mesembryanthemum crystallinum*], *Opuntia littoralis, Rhus integrifolia*

Distribution: At localized sites along the coast, south of Point Conception; Point Mugu, Point Dume, Point Vicente, Dana Point, Torrey Pines State Reserve, Point Loma, etc. Several sites on the off-shore islands.

Southern Coastal Salt Marsh*

Description: Similar to Northern Coastal Salt Marsh (highly productive, herbaceous and suffrutescent, salt-tolerant hydorphytes forming moderate to dense cover and up to 1 meter tall) but with a longer

growing season and greater abundance of suffrutescent species in the higher, drier sites. Southern "specialties" include *Atriplex watsonii*, *Batis maritima, Lycium californicum*, *Monanthochloe littoralis*, *Sueda californica,* and *Salicornia subterminalis*.

Site Factors: Very similar to Northern Coastal Salt Marsh (usually found along sheltered inland margins of bays, lagoons, and estuaries; these hydric soils are subject to regular tidal inundation by saltwater for at least part of each year) but with warmer water and air temperatures. *Frankenia*, *Sueda*, and/or *Salicornia subterminalis* often occur along the upper, landward edges of the marshes; *Salicornia bigelovii, S. virginica,* and *Batis maritima* at middle elevations; and *Spartina* closest to open water.

Characteristic Species: *Amblyopappus pussilus, Atriplex watsonii*, *Batis maritima, Cressa truxillensis, Cuscuta salina, Distichlis spicata* var. *spicata, Frankenia grandifolia, Heliotropium curassavicum, Jaumea carnosa, Juncus acutus sphaerocarpus, Limonium californicum,* [*Carpobrotus aequilateralis*], [*Mesembryanthemum crystalinum*], [*M. nodiflorum*], *Monanthochloe littoralis, Salicornia bigelovii, Salicornia* spp., *Spartina foliosa*, *Suaeda californica*

Distribution: Bays, lagoons, and estuaries along the coast from about Point Conception to the Mexican border. Intergrades broadly with Northern Coastal Salt Marsh along the south central coast. Nowhere as extensive as the larger northern marshes, and now considerably reduced by land development activities. Good to fair examples occur at Goleta Slough and near Carpinteria, Santa Barbara County; Point Mugu, Ventura County; Upper Newport Bay, Orange County; and several small areas in San Diego County.

Southern Cottonwood-Willow Riparian Forest*

Description: Tall, open, broadleafed winter-deciduous riparian forests dominated by *Populus fremontii*, *P. trichocarpa,* and several tree willows. Similar to Central Coast Cottonwood-Sycamore Riparian Forest, although apparently with less *Quercus agrifolia* or *Alnus rhombifolia* (this merits further study). Understories usually are shrubby willows.

Site Factors: Sub-irrigated and frequently overflowed lands along rivers and streams. The dominant species require moist, bare mineral soil for germination and establishment. This is provided after flood waters recede, leading to uniform-aged stands in this seral type.

Characteristic species: *Artemisia douglasiana, Baccaris viminea, Marah macrocarpus, Platanus racemosa, Populus fremontii, P. trichocarpa, Salix gooddingii, S. hindsiana, S. lasiandra, S. lasiolepis, Urtica holosericea*

Distribution: Along perennially wet stream reaches of the Transverse and Peninsular ranges, from Santa Barbara County south to Baja California Norte and east to the edge of the deserts.

Southern Dune Scrub*

Description: Similar to Central Dune Scrub (a dense coastal scrub community of scattered shrubs, subshrubs, and herbs, generally less than 1 meter tall and often developing considerable cover) but plants somewhat shorter and often succulent.

Site Factors: Similar to Central and Northern Dune Scrub (Central: restricted to the coast on ± stabilized backdune slopes, ridges, and flats), but drier and somewhat warmer and probably with less onshore wind. Intergrades toward the coast with Southern Foredunes and away from the coast on rockier soils with Venturan Sage Scrub, or Coastal Succulent Scrub.

Characteristic Species: *Atriplex leucophylla, Croton californicus, Ephedra californica, Ericameria ericoides, Haplopappus venetus vernonioides, Lupinus chamissonia, Lycium brevipes,* [*Mesembryanthemum crystallinum*], *Opuntia littoralis, Rhus integrifolia, Simmondsia chinensis*
Distribution: Same general areas as Southern Foredunes (areas of sand accumulation along the coast between Point Conception and the Mexican border), but usually a little farther back from the coast. With the notable exception of the El Segundo Dunes, this community has been virtually eliminated from mainland Southern California. Other small examples persist in Baja California and the Channel Islands.

Southern Mixed Riparian Forest

Streamside forest with mixed species composition.

Southern Riparian Forest

Streamside forest with mixed species composition.

Southern Sycamore-Alder Riparian Woodland*

Description: A tall, open, broadleafed, winter-deciduous streamside woodland dominated by *Platanus racemosa* (and often also *Alnus rhombifolia*). These stands seldom form closed canopy forests, and even may appear as trees scattered in a shrubby thicket of sclerophyllous and deciduous species. Lianas include *Rubus ursinus* and *Toxicodendron diversilobum*. Distinctions between this type and Sycamore Alluvial Woodland merit additional study.

Site Factors: Very rocky streambeds subject to seasonally high-intensity flooding. *Alnus* increases in abundance on more perennial streams, while *Platanus* favors more intermittent hydrographs.

Characteristic Species: *Acer macrophyllum, Alnus rhombifolia, Artemisia douglasiana, Aralia californica, Equisetum hyemale, Oryzopsis miliacea, Quercus agrifolia, Rubus ursinus, Sambucus Mexicana, Toxicodendron diversilobum, Umbellularia californica, Urtica holsoericea*

Distribution: Transverse and Peninsular Ranges from Point Conception south into Baja California Norte.

Southern Willow Scrub*

Description: Dense, broadleafed, winter-deciduous riparian thickets dominated by several *Salix* species, with scattered emergent *Populus fremontii* and *Platanus racemosa*. Most stands are too dense to allow much understory development.

Site Factors: Loose, sandy, or fine gravelly alluvium deposited near stream channels during flood flows. This early seral type requires repeated flooding to prevent succession to Southern Cottonwood-Sycamore Riparian Forest.

Characteristic Species: *Pluchea sericea, Populus fremontii, Salix gooddingii, S. hindsiana, S. laevigata arauipa, S. lasiandra, S. lasiolepis, S. leucodendroides,* others?

Distribution: Formerly extensive along the major rivers of coastal Southern California, but now much reduced by urban expansion, flood control, and channel "improvements."

Valley Oak Woodland*

Description: Similar to Northern Oak Woodland and Blue Oak Woodland, but typically more open, forming a grassy-understoried savanna rather than a closed woodland. *Quercus lobata* is usually the only tree present. This winter-deciduous species is California's largest broad-leaved tree, with mature individuals reaching 15–35 meters. Most stands consist of open-canopy growth form trees and seldom exceed 30–40 percent absolute cover.

Site Factors: On deep, well-drained alluvial soils, usually in valley bottoms, apparently with more moisture in summer than in Blue Oak Woodland. Intergrades with Valley Oak Riparian Forest near rivers and with Blue Oak Woodland on drier slopes. Also found on non-alluvial settings in the South Coast and Transverse Ranges. Fire may have prevented some valley oak stands from succeeding to Ponderosa Pine or Coulter Pine forests before fire suppression.

Characteristic Species: *Quercus lobata, Elymus triticoides, Toxicodendron diversilobum, Q. douglasii*
Distribution: Sacramento and San Joaquin valleys adjacent to the Sierra Nevada foothills, valleys of the Coast Ranges from Lake County to western Los Angeles County. Usually below 2000 feet (610 meters).

Walnut Forest

Riparian corridors dominated by California walnut (*Juglans californica*). Other species present may include foothill ash (*Fraxinus dipetala*), coast live oak (*Quercus agrifolia*), Mexican elderberry (*Sambucus Mexicana*), and California bay (*Umbellularia californica*).

Appendix E
CNDDB Species List

ESA

Selected Elements by Element Code

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Taxonomic Group is (Fish or Amphibians or Reptiles or Birds or Mammals or Mollusks or Arachnids or Crustaceans or Insects or Ferns or Gymnosperms or Monocots or Dicots or Lichens or Bryophytes) and County is (Los Angeles)

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
AAAAD02110	***Batrachoseps gabrieli*** San Gabriel slender salamander	None	None	G2	S2	
AAAAD04011	***Ensatina eschscholtzii croceator*** yellow-blotched salamander	None	None	G5T3	S3	SSC
AAAAD04013	***Ensatina klauberi*** large-blotched salamander	None	None	G2G3	S2S3	SSC
AAAAF02032	***Taricha torosa*** Coast Range newt	None	None	G4	S4	SSC
AAABB01230	***Anaxyrus californicus*** arroyo toad	Endangered	None	G2G3	S2S3	SSC
AAABF02020	***Spea hammondii*** western spadefoot	None	None	G3	S3	SSC
AAABH01022	***Rana draytonii*** California red-legged frog	Threatened	None	G2G3	S2S3	SSC
AAABH01330	***Rana muscosa*** southern mountain yellow-legged frog	Endangered	Endangered	G1	S1	SSC
ABNDC04030	***Oceanodroma homochroa*** ashy storm-petrel	None	None	G2	S2	SSC
ABNGE02020	***Plegadis chihi*** white-faced ibis	None	None	G5	S3S4	WL
ABNKA03010	***Gymnogyps californianus*** California condor	Endangered	Endangered	G1	S1	
ABNKC06010	***Elanus leucurus*** white-tailed kite	None	None	G5	S3	FP
ABNKC10010	***Haliaeetus leucocephalus*** bald eagle	Delisted	Endangered	G5	S2	FP
ABNKC12040	***Accipiter cooperii*** Cooper's hawk	None	None	G5	S3	WL
ABNKC19070	***Buteo swainsoni*** Swainson's hawk	None	Threatened	G5	S3	
ABNKC19120	***Buteo regalis*** ferruginous hawk	None	None	G4	S3S4	WL
ABNKC22010	***Aquila chrysaetos*** golden eagle	None	None	G5	S3	FP
ABNKD06030	***Falco columbarius*** merlin	None	None	G5	S3S4	WL
ABNKD06071	***Falco peregrinus anatum*** American peregrine falcon	Delisted	Delisted	G4T4	S3S4	FP

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
ABNKD06090	***Falco mexicanus*** prairie falcon	None	None	G5	S4	WL
ABNME03041	***Laterallus jamaicensis coturniculus*** California black rail	None	Threatened	G4T1	S1	FP
ABNNB03031	***Charadrius alexandrinus nivosus*** western snowy plover	Threatened	None	G3T3	S2	SSC
ABNNB03100	***Charadrius montanus*** mountain plover	None	None	G3	S2?	SSC
ABNNM08103	***Sternula antillarum browni*** California least tern	Endangered	Endangered	G4T2T3Q	S2S3	FP
ABNNN07012	***Synthliboramphus scrippsi*** Scripps's murrelet	Candidate	Threatened	G3	S2	
ABNRB02022	***Coccyzus americanus occidentalis*** western yellow-billed cuckoo	Proposed Threatened	Endangered	G5T3Q	S1	
ABNSB10010	***Athene cunicularia*** burrowing owl	None	None	G4	S3	SSC
ABNSB13040	***Asio flammeus*** short-eared owl	None	None	G5	S3	SSC
ABNUA01010	***Cypseloides niger*** black swift	None	None	G4	S2	SSC
ABPAE33043	***Empidonax traillii extimus*** southwestern willow flycatcher	Endangered	Endangered	G5T1T2	S1	
ABPAT02011	***Eremophila alpestris actia*** California horned lark	None	None	G5T3Q	S3	WL
ABPAU08010	***Riparia riparia*** bank swallow	None	Threatened	G5	S2S3	
ABPBG02095	***Campylorhynchus brunneicapillus sandiegensis*** coastal cactus wren	None	None	G5T3Q	S3	SSC
ABPBJ08081	***Polioptila californica californica*** coastal California gnatcatcher	Threatened	None	G3T2	S2	SSC
ABPBK06100	***Toxostoma lecontei*** Le Conte's thrasher	None	None	G4	S3	SSC
ABPBR01030	***Lanius ludovicianus*** loggerhead shrike	None	None	G4	S4	SSC
ABPBR01036	***Lanius ludovicianus mearnsi*** San Clemente loggerhead shrike	Endangered	None	G4T1Q	S1	SSC
ABPBW01114	***Vireo bellii pusillus*** least Bell's vireo	Endangered	Endangered	G5T2	S2	
ABPBX03010	***Setophaga petechia*** yellow warbler	None	None	G5	S3S4	SSC
ABPBX24010	***Icteria virens*** yellow-breasted chat	None	None	G5	S3	SSC

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
ABPBX91091	***Aimophila ruficeps canescens*** southern California rufous-crowned sparrow	None	None	G5T3	S2S3	WL
ABPBX97021	***Artemisiospiza belli belli*** Bell's sage sparrow	None	None	G5T2T4	S2?	WL
ABPBX97024	***Artemisiospiza belli clementeae*** San Clemente sage sparrow	Threatened	None	G5T1Q	S1	SSC
ABPBX99015	***Passerculus sandwichensis beldingi*** Belding's savannah sparrow	None	Endangered	G5T3	S3	
ABPBXA0020	***Ammodramus savannarum*** grasshopper sparrow	None	None	G5	S2	SSC
ABPBXA301C	***Melospiza melodia graminea*** Channel Island song sparrow	None	None	G5T1	S1	SSC
ABPBXB0020	***Agelaius tricolor*** tricolored blackbird	None	None	G2G3	S1S2	SSC
AFCHA0209J	***Oncorhynchus mykiss irideus*** southern steelhead - southern California DPS	Endangered	None	G5T1Q	S1	SSC
AFCJB1303H	***Siphateles bicolor mohavensis*** Mohave tui chub	Endangered	Endangered	G4T1	S1	FP
AFCJB13120	***Gila orcuttii*** arroyo chub	None	None	G2	S2	SSC
AFCJB3705K	***Rhinichthys osculus ssp. 3*** Santa Ana speckled dace	None	None	G5T1	S1	SSC
AFCJC02190	***Catostomus santaanae*** Santa Ana sucker	Threatened	None	G1	S1	SSC
AFCPA03011	***Gasterosteus aculeatus williamsoni*** unarmored threespine stickleback	Endangered	Endangered	G5T1	S1	FP
AFCQN04010	***Eucyclogobius newberryi*** tidewater goby	Endangered	None	G3	S2S3	SSC
AMABA01101	***Sorex ornatus willetti*** Santa Catalina shrew	None	None	G5T1	S1	SSC
AMABA01104	***Sorex ornatus salicornicus*** southern California saltmarsh shrew	None	None	G5T1?	S1	SSC
AMACB01010	***Macrotus californicus*** California leaf-nosed bat	None	None	G4	S3	SSC
AMACC01020	***Myotis yumanensis*** Yuma myotis	None	None	G5	S4?	
AMACC01070	***Myotis evotis*** long-eared myotis	None	None	G5	S4?	
AMACC01090	***Myotis thysanodes*** fringed myotis	None	None	G4	S4	
AMACC01110	***Myotis volans*** long-legged myotis	None	None	G5	S4?	

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
AMACC01140	***Myotis ciliolabrum*** western small-footed myotis	None	None	G5	S2S3	
AMACC02010	***Lasionycteris noctivagans*** silver-haired bat	None	None	G5	S3S4	
AMACC05030	***Lasiurus cinereus*** hoary bat	None	None	G5	S4?	
AMACC05060	***Lasiurus blossevillii*** western red bat	None	None	G5	S3?	SSC
AMACC05070	***Lasiurus xanthinus*** western yellow bat	None	None	G5	S3	SSC
AMACC07010	***Euderma maculatum*** spotted bat	None	None	G4	S3	SSC
AMACC08010	***Corynorhinus townsendii*** Townsend's big-eared bat	None	Candidate Threatened	G3G4	S2S3	SSC
AMACC10010	***Antrozous pallidus*** pallid bat	None	None	G5	S3	SSC
AMACD02011	***Eumops perotis californicus*** western mastiff bat	None	None	G5T4	S4	SSC
AMACD04010	***Nyctinomops femorosaccus*** pocketed free-tailed bat	None	None	G4	S3	SSC
AMACD04020	***Nyctinomops macrotis*** big free-tailed bat	None	None	G5	S2	SSC
AMAEB03051	***Lepus californicus bennettii*** San Diego black-tailed jackrabbit	None	None	G5T3T4	S3S4	SSC
AMAFB02172	***Neotamias speciosus speciosus*** lodgepole chipmunk	None	None	G4T2T3	S2S3	
AMAFB04040	***Ammospermophilus nelsoni*** Nelson's antelope squirrel	None	Threatened	G2	S2	
AMAFB05150	***Xerospermophilus mohavensis*** Mohave ground squirrel	None	Threatened	G2G3	S2S3	
AMAFD01041	***Perognathus longimembris brevinasus*** Los Angeles pocket mouse	None	None	G5T1T2	S1S2	SSC
AMAFD01042	***Perognathus longimembris pacificus*** Pacific pocket mouse	Endangered	None	G5T1	S1	SSC
AMAFD01060	***Perognathus inornatus*** San Joaquin Pocket Mouse	None	None	G2G3	S2S3	
AMAFD01082	***Perognathus alticolus inexpectatus*** Tehachapi pocket mouse	None	None	G1G2T1T2	S1S2	SSC
AMAFD03143	***Dipodomys merriami parvus*** San Bernardino kangaroo rat	Endangered	None	G5T1	S1	SSC
AMAFD05031	***Chaetodipus fallax fallax*** northwestern San Diego pocket mouse	None	None	G5T3T4	S3S4	SSC

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
AMAFD05032	***Chaetodipus fallax pallidus*** pallid San Diego pocket mouse	None	None	G5T34	S3S4	SSC
AMAFF06022	***Onychomys torridus ramona*** southern grasshopper mouse	None	None	G5T3	S3	SSC
AMAFF08041	***Neotoma lepida intermedia*** San Diego desert woodrat	None	None	G5T3T4	S3S4	SSC
AMAFF11035	***Microtus californicus stephensi*** south coast marsh vole	None	None	G5T1T2	S1S2	SSC
AMAJA04022	***Urocyon littoralis catalinae*** Santa Catalina Island fox	Endangered	Threatened	G1T1	S1	
AMAJA04023	***Urocyon littoralis clementae*** San Clemente Island fox	None	Threatened	G1T1	S1	
AMAJF04010	***Taxidea taxus*** American badger	None	None	G5	S3	SSC
AMALE04013	***Ovis canadensis nelsoni*** desert bighorn sheep	None	None	G4T4	S3	FP
ARAAA02010	***Chelonia mydas*** green turtle	Threatened	None	G3	S1	
ARAAD02030	***Emys marmorata*** western pond turtle	None	None	G3G4	S3	SSC
ARAAF01012	***Gopherus agassizii*** desert tortoise	Threatened	Threatened	G3	S2	
ARACC01012	***Anniella pulchra pulchra*** silvery legless lizard	None	None	G3G4T3T4Q	S3	SSC
ARACF12100	***Phrynosoma blainvillii*** coast horned lizard	None	None	G3G4	S3S4	SSC
ARACJ02143	***Aspidoscelis tigris stejnegeri*** coastal whiptail	None	None	G5T3T4	S2S3	
ARACK01020	***Xantusia riversiana*** island night lizard	Delisted	None	G3	G3	
ARADA01020	***Charina trivirgata*** rosy boa	None	None	G4G5	S3S4	
ARADB10015	***Diadophis punctatus modestus*** San Bernardino ringneck snake	None	None	G5T2T3Q	S2?	
ARADB19062	***Lampropeltis zonata (parvirubra)*** California mountain kingsnake (San Bernardino population)	None	None	G4G5	S2?	SSC
ARADB19063	***Lampropeltis zonata (pulchra)*** California mountain kingsnake (San Diego population)	None	None	G4G5	S1S2	SSC
ARADB36160	***Thamnophis hammondii*** two-striped garter snake	None	None	G4	S3S4	SSC
ICBRA07010	***Streptocephalus woottoni*** Riverside fairy shrimp	Endangered	None	G1G2	S1S2	

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
IICOL02080	***Cicindela gabbii*** western tidal-flat tiger beetle	None	None	G2G4	S1	
IICOL02101	***Cicindela hirticollis gravida*** sandy beach tiger beetle	None	None	G5T2	S1	
IICOL02113	***Cicindela latesignata latesignata*** western beach tiger beetle	None	None	G2G4T1T2	S1	
IICOL02121	***Cicindela senilis frosti*** senile tiger beetle	None	None	G2G3T1T3	S1	
IICOL4A010	***Coelus globosus*** globose dune beetle	None	None	G1G2	S1S2	
IICOL4W010	***Onychobaris langei*** Lange's El Segundo Dune weevil	None	None	G1	S1	
IICOL51021	***Trigonoscuta dorothea dorothea*** Dorothy's El Segundo Dune weevil	None	None	G1T1	S1	
IIDIP05022	***Rhaphiomidas terminatus terminatus*** El Segundo flower-loving fly	None	None	G1T1	S1	
IIDIP17010	***Brennania belkini*** Belkin's dune tabanid fly	None	None	G1G2	S1S2	
IIHYM71040	***Ceratochrysis longimala*** Desert cuckoo wasp	None	None	G1	S1	
IILEM0R390	***Eucosma hennei*** Henne's eucosman moth	None	None	G1	S1	
IILEM2X090	***Carolella busckana*** Busck's gallmoth	None	None	G1G3	SH	
IILEP84030	***Panoquina errans*** wandering (=saltmarsh) skipper	None	None	G4G5	S2	
IILEPE2206	***Callophrys mossii hidakupa*** San Gabriel Mountains elfin butterfly	None	None	G4T1T2	S1S2	
IILEPG201B	***Euphilotes battoides allyni*** El Segundo blue butterfly	Endangered	None	G5T1	S1	
IILEPG402A	***Glaucopsyche lygdamus palosverdesensis*** Palos Verdes blue butterfly	Endangered	None	G5T1	S1	
IILEPG6011	***Plebejus saepiolus aureolus*** San Gabriel Mountains blue butterfly	None	None	G5T1	S1	
IILEPG7010	***Plebulina emigdionis*** San Emigdio blue butterfly	None	None	G1G2	S1S2	
IILEPP2010	***Danaus plexippus*** monarch butterfly	None	None	G5	S3	
IIORT32020	***Aglaothorax longipennis*** Santa Monica shieldback katydid	None	None	G1G2	S1S2	
IIORT36300	***Trimerotropis occidentiloides*** Santa Monica grasshopper	None	None	G1G2	S1S2	

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IITRI23010	***Diplectrona californica*** California diplectronan caddisfly	None	None	G1G2	S1S2	
ILARAU7010	***Socalchemmis gertschi*** Gertsch's socalchemmis spider	None	None	G1	S1	
IMGAS19020	***Sterkia clementina*** San Clemente Island blunt-top snail	None	None	G1	S1	
IMGAS36030	***Haplotrema catalinense*** Santa Catalina lancetooth	None	None	G1	S1	
IMGAS80110	***Pristiloma shepardae*** Shepard's snail	None	None	G1	S1	
IMGASB6010	***Radiocentrum avalonense*** Catalina mountainsnail	None	None	G1	S1	
IMGASC5030	***Micrarionta gabbi*** San Clemente islandsnail	None	None	G1	S1	
IMGASD1010	***Xerarionta intercisa*** horseshoe snail	None	None	G1	S1	
IMGASD1030	***Xerarionta redimita*** wreathed cactussnail	None	None	G1G2	S1	
IMGASJ7040	***Tryonia imitator*** mimic tryonia (=California brackishwater snail)	None	None	G2	S2	
NBMUS7L090	***Tortula californica*** California screw moss	None	None	G2?	S2	1B.2
NBMUS80010	***Anomobryum julaceum*** slender silver moss	None	None	G4G5	S2	4.2
NLTES29470	***Graphis saxorum*** Baja rock lichen	None	None	G1G3	S1S3	3
NLTEST7980	***Texosporium sancti-jacobi*** woven-spored lichen	None	None	G3	S1	3
PDAPI0U090	***Cymopterus deserticola*** desert cymopterus	None	None	G2	S2	1B.2
PDAPI1B0W0	***Lomatium insulare*** San Nicolas Island lomatium	None	None	G2G3	S2S3	1B.2
PDAPI1G030	***Oreonana vestita*** woolly mountain-parsley	None	None	G3	S3	1B.3
PDAST0W0W0	***Baccharis malibuensis*** Malibu baccharis	None	None	G1	S1	1B.1
PDAST20095	***Chaenactis glabriuscula var. orcuttiana*** Orcutt's pincushion	None	None	G5T1	S1	1B.1
PDAST3N070	***Eriophyllum mohavense*** Barstow woolly sunflower	None	None	G2	S2	1B.2
PDAST3N090	***Constancea nevinii*** Nevin's woolly sunflower	None	None	G3	S3	1B.3

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PDAST440C0	***Pseudognaphalium leucocephalum*** white rabbit-tobacco	None	None	G4	S2	2B.2
PDAST4H020	***Hazardia cana*** San Clemente Island hazardia	None	None	G2	S2	1B.2
PDAST4N102	***Helianthus nuttallii ssp. parishii*** Los Angeles sunflower	None	None	G5TH	SH	1A
PDAST4N250	***Helianthus inexpectatus*** Newhall sunflower	None	None	G1	S1	1B.1
PDAST4R0J0	***Deinandra minthornii*** Santa Susana tarplant	None	Rare	G2	S2	1B.2
PDAST4R0P4	***Centromadia parryi ssp. australis*** southern tarplant	None	None	G3T2	S2	1B.1
PDAST57091	***Isocoma menziesii var. decumbens*** decumbent goldenbush	None	None	G3G5T2T3	S2	1B.2
PDAST5L0A1	***Lasthenia glabrata ssp. coulteri*** Coulter's goldfields	None	None	G4T2	S2	1B.1
PDAST5N070	***Layia heterotricha*** pale-yellow layia	None	None	G2	S2	1B.1
PDAST6X060	***Pentachaeta lyonii*** Lyon's pentachaeta	Endangered	Endangered	G2	S2	1B.1
PDAST8H060	***Senecio aphanactis*** chaparral ragwort	None	None	G3?	S2	2B.2
PDAST8U0K0	***Munzothamnus blairii*** Blair's munzothamnus	None	None	G3	S3	1B.2
PDAST8Y080	***Stylocline masonii*** Mason's neststraw	None	None	G1	S1	1B.1
PDASTE80C0	***Symphyotrichum defoliatum*** San Bernardino aster	None	None	G2	S2	1B.2
PDASTE80U0	***Symphyotrichum greatae*** Greata's aster	None	None	G3	S3	1B.3
PDBER060A0	***Berberis nevinii*** Nevin's barberry	Endangered	Endangered	G1	S1	1B.1
PDBOR0A370	***Cryptantha traskiae*** Trask's cryptantha	None	None	G2	S2	1B.1
PDBOR0A3M0	***Cryptantha clokeyi*** Clokey's cryptantha	None	None	G2	S2	1B.2
PDBOR0A400	***Cryptantha wigginsii*** Wiggins' cryptantha	None	None	G2	S1	1B.2
PDBOR0H010	***Harpagonella palmeri*** Palmer's grapplinghook	None	None	G4	S3	4.2
PDBOR0V0U0	***Plagiobothrys parishii*** Parish's popcornflower	None	None	G1	S1	1B.1

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PDBRA061M3	***Boechera lincolnensis*** Lincoln rockcress	None	None	G4?	S2	2B.3
PDBRA10020	***Dithyrea maritima*** beach spectaclepod	None	Threatened	G2	S1	1B.1
PDBRA1M114	***Lepidium virginicum var. robinsonii*** Robinson's pepper-grass	None	None	G5T3	S3	4.3
PDBRA270V0	***Nasturtium gambelii*** Gambel's water cress	Endangered	Threatened	G1	S1	1B.1
PDBRA2A020	***Sibara filifolia*** Santa Cruz Island winged-rockcress	Endangered	None	G1	S1	1B.1
PDBRA2Q070	***Thysanocarpus rigidus*** rigid fringepod	None	None	G1G2	S1S2	1B.2
PDCAC0D053	***Opuntia basilaris var. brachyclada*** short-joint beavertail	None	None	G5T3	S3	1B.2
PDCAC11010	***Bergerocactus emoryi*** golden-spined cereus	None	None	G2	S2	2B.2
PDCAM0F0B2	***Nemacladus secundiflorus var. robbinsii*** Robbins' nemacladus	None	None	G3T2T3	S2S3	1B.2
PDCAR040L0	***Arenaria paludicola*** marsh sandwort	Endangered	Endangered	G1	S1	1B.1
PDCAR0E011	***Loeflingia squarrosa var. artemisiarum*** sagebrush loeflingia	None	None	G5T2T3	S2	2B.2
PDCHE02010	***Aphanisma blitoides*** aphanisma	None	None	G3G4	S3	1B.2
PDCHE040E0	***Atriplex coulteri*** Coulter's saltbush	None	None	G2	S2	1B.2
PDCHE041C0	***Atriplex pacifica*** south coast saltscale	None	None	G3G4	S2	1B.2
PDCHE041D0	***Atriplex parishii*** Parish's brittlescale	None	None	G1G2	S1	1B.1
PDCHE041T1	***Atriplex serenana var. davidsonii*** Davidson's saltscale	None	None	G5T1	S1	1B.2
PDCHE091Z0	***Chenopodium littoreum*** coastal goosefoot	None	None	G2	S2	1B.2
PDCHE0P0D0	***Suaeda esteroa*** estuary seablite	None	None	G3	S2	1B.2
PDCIS02090	***Crocanthemum greenei*** island rush-rose	Threatened	None	G2	S2	1B.2
PDCON040A0	***Calystegia peirsonii*** Peirson's morning-glory	None	None	G4	S4	4.2
PDCON040P0	***Calystegia felix*** lucky morning-glory	None	None	GHQ	SH	3.1

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PDCPR030R3	***Lonicera subspicata var. subspicata*** Santa Barbara honeysuckle	None	None	G5T2	S2	1B.2
PDCRA04051	***Dudleya blochmaniae ssp. blochmaniae*** Blochman's dudleya	None	None	G2T2	S2	1B.1
PDCRA040A3	***Dudleya cymosa ssp. marcescens*** marcescent dudleya	Threatened	Rare	G5T2	S2	1B.2
PDCRA040A5	***Dudleya cymosa ssp. ovatifolia*** Santa Monica dudleya	Threatened	None	G5T1	S1	1B.1
PDCRA040A7	***Dudleya cymosa ssp. agourensis*** Agoura Hills dudleya	Threatened	None	G5T1	S2	1B.2
PDCRA040A8	***Dudleya cymosa ssp. crebrifolia*** San Gabriel River dudleya	None	None	G5T1	S1	1B.2
PDCRA040B0	***Dudleya densiflora*** San Gabriel Mountains dudleya	None	None	G2	S2	1B.1
PDCRA040H0	***Dudleya multicaulis*** many-stemmed dudleya	None	None	G2	S2	1B.2
PDCRA040S1	***Dudleya virens ssp. hassei*** Catalina Island dudleya	None	None	G3?T2?	S2?	1B.2
PDCRA040S2	***Dudleya virens ssp. insularis*** island green dudleya	None	None	G3?T3	S3	1B.2
PDCRA040S3	***Dudleya virens ssp. virens*** bright green dudleya	None	None	G3?T1	S1	1B.2
PDCRO02020	***Crossosoma californicum*** Catalina crossosoma	None	None	G2	S2	1B.2
PDCUS01111	***Cuscuta obtusiflora var. glandulosa*** Peruvian dodder	None	None	G5T4T5	SH	2B.2
PDERI04070	***Arctostaphylos catalinae*** Santa Catalina Island manzanita	None	None	G2?	S2?	1B.2
PDERI042P0	***Arctostaphylos glandulosa ssp. gabrielensis*** San Gabriel manzanita	None	None	G5T2	S2	1B.2
PDEUP0Q1B0	***Euphorbia misera*** cliff spurge	None	None	G5	S2	2B.2
PDFAB0F1G0	***Astragalus brauntonii*** Braunton's milk-vetch	Endangered	None	G2	S2	1B.1
PDFAB0F4T0	***Astragalus leucolobus*** Big Bear Valley woollypod	None	None	G2	S2	1B.2
PDFAB0F5X0	***Astragalus nevinii*** San Clemente Island milk-vetch	None	None	G3	S3	1B.2
PDFAB0F721	***Astragalus preussii var. laxiflorus*** Lancaster milk-vetch	None	None	G4T2	S1	1B.1
PDFAB0F7B1	***Astragalus pycnostachyus var. lanosissimus*** Ventura Marsh milk-vetch	Endangered	Endangered	G2T1	S1	1B.1

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PDFAB0F8R2	***Astragalus tener var. titi*** coastal dunes milk-vetch	Endangered	Endangered	G2T1	S1	1B.1
PDFAB0FB92	***Astragalus lentiginosus var. antonius*** San Antonio milk-vetch	None	None	G5T2	S2	1B.3
PDFAB2A041	***Acmispon argophyllus var. adsurgens*** San Clemente Island bird's-foot trefoil	None	Endangered	G5T1	S1	1B.1
PDFAB2A1G2	***Acmispon dendroideus var. traskiae*** San Clemente Island lotus	Threatened	Endangered	G4T2	S2	1B.1
PDFAB2B1T0	***Lupinus guadalupensis*** Guadalupe Island lupine	None	None	G3	S3	1B.2
PDFAB2B330	***Lupinus peirsonii*** Peirson's lupine	None	None	G2	S2	1B.3
PDFAB2X0H3	***Oxytropis oreophila var. oreophila*** rock-loving oxytrope	None	None	G5T4	S2	2B.3
PDFAG050D0	***Quercus dumosa*** Nuttall's scrub oak	None	None	G3	S3	1B.1
PDGER01070	***California macrophylla*** round-leaved filaree	None	None	G2	S2	1B.1
PDGRO020F3	***Ribes divaricatum var. parishii*** Parish's gooseberry	None	None	G4TH	SH	1A
PDGRO021P0	***Ribes viburnifolium*** Santa Catalina Island currant	None	None	G2?	S2?	1B.2
PDHYD0A0H0	***Nama stenocarpum*** mud nama	None	None	G4G5	S1S2	2B.2
PDHYD0C1G0	***Phacelia floribunda*** many-flowered phacelia	None	None	G2	S2	1B.2
PDHYD0C510	***Phacelia stellaris*** Brand's star phacelia	None	None	G1	S1	1B.1
PDLAM0V060	***Lepechinia rossii*** Ross' pitcher sage	None	None	G1	S1	1B.2
PDLAM180A3	***Monardella hypoleuca ssp. hypoleuca*** white-veined monardella	None	None	G4T2T3	S2S3	1B.3
PDLAM180D2	***Monardella linoides ssp. oblonga*** Tehachapi monardella	None	None	G5T2	S2	1B.3
PDLAM180E1	***Monardella macrantha ssp. hallii*** Hall's monardella	None	None	G5T3	S3	1B.3
PDLAM1U0A1	***Scutellaria bolanderi ssp. austromontana*** southern mountains skullcap	None	None	G4T2	S2	1B.2
PDMAL0N022	***Lavatera assurgentiflora ssp. glabra*** southern island mallow	None	None	G1T1	S1	1B.1
PDMAL0Q030	***Malacothamnus clementinus*** San Clemente Island bush-mallow	Endangered	Endangered	G2	S2	1B.1

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PDMAL0Q040	***Malacothamnus davidsonii*** Davidson's bush-mallow	None	None	G2	S2	1B.2
PDMAL110J0	***Sidalcea neomexicana*** Salt Spring checkerbloom	None	None	G4?	S2S3	2B.2
PDONA030M1	***Camissoniopsis guadalupensis ssp. clementina*** San Clemente Island evening-primrose	None	None	G3T3	S3	1B.2
PDONA05181	***Clarkia xantiana ssp. parviflora*** Kern Canyon clarkia	None	None	G4T3	S3	4.2
PDORO040A2	***Orobanche parishii ssp. brachyloba*** short-lobed broomrape	None	None	G4?T4	S3	4.2
PDORO040G2	***Orobanche valida ssp. valida*** Rock Creek broomrape	None	None	G3T2	S2	1B.2
PDPAP05020	***Canbya candida*** white pygmy-poppy	None	None	G3G4	S3S4	4.2
PDPAP08012	***Dendromecon harfordii var. rhamnoides*** south island bush-poppy	None	None	G4T1Q	S1	3.1
PDPGN040J1	***Chorizanthe parryi var. fernandina*** San Fernando Valley spineflower	Candidate	Endangered	G2T1	S1	1B.1
PDPGN040J2	***Chorizanthe parryi var. parryi*** Parry's spineflower	None	None	G3T3	S3	1B.1
PDPGN082A2	***Eriogonum giganteum var. formosum*** San Clemente Island buckwheat	None	None	G3T3	S3	1B.2
PDPGN083B1	***Eriogonum kennedyi var. alpigenum*** southern alpine buckwheat	None	None	G4T3	S3	1B.3
PDPGN083W5	***Eriogonum microthecum var. johnstonii*** Johnston's buckwheat	None	None	G5T2	S2	1B.3
PDPGN0G011	***Nemacaulis denudata var. denudata*** coast woolly-heads	None	None	G3G4T2	S2	1B.2
PDPGN0V010	***Dodecahema leptoceras*** slender-horned spineflower	Endangered	Endangered	G1	S1	1B.1
PDPLM030G0	***Eriastrum rosamondense*** Rosamond eriastrum	None	None	G1	S1	1B.1
PDPLM090D0	***Linanthus concinnus*** San Gabriel linanthus	None	None	G3	S3	1B.2
PDPLM09102	***Leptosiphon pygmaeus ssp. pygmaeus*** pygmy leptosiphon	None	None	G4T1	S1	1B.2
PDPLM0C080	***Navarretia fossalis*** spreading navarretia	Threatened	None	G1	S1	1B.1
PDPLM0C0L0	***Navarretia peninsularis*** Baja navarretia	None	None	G3?	S2	1B.2
PDPLM0C0Q0	***Navarretia prostrata*** prostrate vernal pool navarretia	None	None	G2	S2	1B.1

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PDPLM0C0S0	***Navarretia setiloba*** Piute Mountains navarretia	None	None	G2	S2	1B.1
PDPOR04010	***Lewisia brachycalyx*** short-sepaled lewisia	None	None	G4G5	S2	2B.2
PDRAN0B1X2	***Delphinium variegatum ssp. thornei*** Thorne's royal larkspur	None	None	G4T2	S2	1B.1
PDRAN0B1X3	***Delphinium variegatum ssp. kinkiense*** San Clemente Island larkspur	Endangered	Endangered	G4T2	S2	1B.1
PDROS08030	***Cercocarpus traskiae*** Catalina Island mountain-mahogany	Endangered	Endangered	G1	S1	1B.1
PDROS0W045	***Horkelia cuneata var. puberula*** mesa horkelia	None	None	G4T1	S1	1B.1
PDROS12011	***Lyonothamnus floribundus ssp. aspleniifolius*** Santa Cruz Island ironwood	None	None	G3T3	S3	1B.2
PDROS12012	***Lyonothamnus floribundus ssp. floribundus*** Santa Catalina Island ironwood	None	None	G3T2	S2	1B.2
PDROS1B0S3	***Drymocallis cuneifolia var. ewanii*** Ewan's cinquefoil	None	None	G1T1	S1	1B.3
PDROS1B120	***Potentilla multijuga*** Ballona cinquefoil	None	None	GX	SX	1A
PDRUB0N0F1	***Galium catalinense ssp. acrispum*** San Clemente Island bedstraw	None	Endangered	G4T2	S2	1B.2
PDRUB0N0F2	***Galium catalinense ssp. catalinense*** Santa Catalina Island bedstraw	None	None	G4T2T3	S2S3	1B.2
PDRUB0N0V0	***Galium grande*** San Gabriel bedstraw	None	None	G2	S2	1B.2
PDSAX0M070	***Lithophragma maximum*** San Clemente Island woodland star	Endangered	Endangered	G1	S1	1B.1
PDSAX0P030	***Parnassia cirrata var. cirrata*** San Bernardino grass-of-Parnassus	None	None	G5T2	S2	1B.3
PDSCR0D140	***Castilleja gleasoni*** Mt. Gleason paintbrush	None	Rare	G2	S2	1B.2
PDSCR0D160	***Castilleja grisea*** San Clemente Island paintbrush	Threatened	Endangered	G3	S3	1B.3
PDSCR0J0C2	***Chloropyron maritimum ssp. maritimum*** salt marsh bird's-beak	Endangered	Endangered	G4?T1	S1	1B.2
PDSCR1B2P0	***Mimulus traskiae*** Santa Catalina Island monkeyflower	None	None	GX	SX	1A
PDSCR1S0D0	***Scrophularia villosa*** Santa Catalina figwort	None	None	G3	S3	1B.2
PDSCR2H010	***Gambelia speciosa*** showy island snapdragon	None	None	G3	S3	1B.2

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PDSOL0G0N0	***Lycium brevipes var. hassei*** Santa Catalina Island desert-thorn	None	None	G1Q	S1	1B.1
PDSOL0Z280	***Solanum wallacei*** Wallace's nightshade	None	None	G2Q	S2	1B.1
PDVIO04431	***Viola pinetorum var. grisea*** grey-leaved violet	None	None	G4G5T3?	S3?	1B.3
PMAGA080E0	***Nolina cismontana*** chaparral nolina	None	None	G2	S2	1B.2
PMCYP039M0	***Carex occidentalis*** western sedge	None	None	G4	S2S3	2B.3
PMCYP04010	***Cladium californicum*** California saw-grass	None	None	G4	S2	2B.2
PMCYP0B0N0	***Fimbristylis thermalis*** hot springs fimbristylis	None	None	G4	S2	2B.2
PMLIL0C050	***Brodiaea filifolia*** thread-leaved brodiaea	Threatened	Endangered	G1	S1	1B.1
PMLIL0C080	***Brodiaea kinkiensis*** San Clemente Island brodiaea	None	None	G2	S2	1B.2
PMLIL0D096	***Calochortus clavatus var. gracilis*** slender mariposa-lily	None	None	G4T2T3	S2S3	1B.2
PMLIL0D122	***Calochortus palmeri var. palmeri*** Palmer's mariposa-lily	None	None	G3T3?	S3?	1B.2
PMLIL0D150	***Calochortus plummerae*** Plummer's mariposa-lily	None	None	G4	S4	4.2
PMLIL0D190	***Calochortus striatus*** alkali mariposa-lily	None	None	G2	S2	1B.2
PMLIL0D1J1	***Calochortus weedii var. intermedius*** intermediate mariposa-lily	None	None	G3G4T2	S2	1B.2
PMLIL0D1J2	***Calochortus fimbriatus*** late-flowered mariposa-lily	None	None	G3	S3	1B.2
PMLIL1A0J0	***Lilium parryi*** lemon lily	None	None	G3	S3	1B.2
PMLIL21020	***Triteleia clementina*** San Clemente Island triteleia	None	None	G2	S2	1B.2
PMPOA29010	***Dissanthelium californicum*** California dissanthelium	None	None	G1	S1	1B.2
PMPOA3D020	***Imperata brevifolia*** California satintail	None	None	G3	S3	2B.1
PMPOA48020	***Muhlenbergia appressa*** appressed muhly	None	None	G4	S3	2B.2
PMPOA480A0	***Muhlenbergia californica*** California muhly	None	None	G3	S3.3	4.3

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
PMPOA4G010	***Orcuttia californica*** California Orcutt grass	Endangered	Endangered	G1	S1	1B.1
PPOPH010L0	***Botrychium crenulatum*** scalloped moonwort	None	None	G3	S2	2B.2
PPTHE05192	***Thelypteris puberula var. sonorensis*** Sonoran maiden fern	None	None	G5T3	S2	2B.2

Record Count: 295

Appendix F

Supplemental Hydrology and Water Quality Data

ESA

APPENDIX F

Supplemental Hydrology and Water Quality Data

This appendix provides supplemental information describing the Enhanced Watershed Management Program (EWMP) Management Areas, the designated Beneficial Uses of the major water bodies within each EWMP Area, and applicable Total Maximum Daily Loads (TMDLs) for each EWMP Area and Permittee.

Land Use

Table F-1 describes land use in each of the EWMP Management Areas, based on the 2005 Southern California Area Governments Land Use Database. As previously described in Section 3.8, "Hydrology and Water Quality," each EWMP group falls into one of six categories:

- **Southern Coastal EWMP Areas** (Beach Cities, Santa Monica Bay Jurisdictions 2 + 3, Marina Del Rey, Ballona Creek), dominated by urbanized beach communities with high-density residential and commercial land uses.
- **Northern Coastal EWMP Areas** (Malibu Creek and Northern Santa Monica Bay), characterized by lower-density development along the coast and greater open space areas inland.
- **Upper San Gabriel and Rio Hondo/San Gabriel EWMP Areas**, characterized by higher-density development in the lower watershed areas and lower-density development and open space in the upper watersheds where the foothills to the San Gabriel Mountains begin.
- **Upper Los Angeles River EWMP Area,** which is primarily urbanized with high-density residential and commercial uses but with characteristics of the Upper San Gabriel in the farthest upper reaches near the foothills.
- **Dominguez Channel and Palos Verdes Peninsula EWMP Areas,** with high-density beach and inland communities and a relatively larger area of industrial land use.
- **Upper Santa Clara River EWMP Area**, which is predominantly open space.

TABLE F-1
LAND USE DISTRIBUTIONS WITHIN EWMP AREAS

EWMP Area/ Subarea	Land Use Distribution (%)[1]							
	Multi-Family Residential	Single Family Residential	Other Urban	Commercial	Industrial	Transportation	Agricultural	Vacant/ Open Space/ Recreation
Ballona Creek	13.7%	45.5%	6.0%	10.6%	4.0%	2.7%	0.0%	15.9%
Beach Cities	8.2%	51.4%	6.6%	13.7%	10.6%	3.5%	0.8%	2.4%
Dominguez Channel	14.2%	27.7%	15.9%	18.4%	15.7%	0.0%	0.3%	7.8%
Malibu	4.6%	8.7%	1.4%	1.6%	0.3%	1.7%	1.3%	79.6%
Marina del Rey	27.4%	16.9%	6.2%	19.1%	2.0%	21.1%	0.0%	7.5%
North SMB	0.3%	5.0%	0.3%	0.4%	0.1%	0.0%	0.8%	93.1%
Palos Verdes Peninsula	2.8%	55.8%	4.2%	1.6%	0.7%	1.2%	0.5%	30.2%
Rio Hondo/ San Gabriel River	7.0%	47.0%	3.0%	8.0%	7.0%	1.0%	3.0%	24.0%
SMB Juris 2+3	6.4%	27.3%	2.5%	3.9%	4.0%	7.7%	0.0%	47.1%
Upper LA River	5.3%	47.3%	5.0%	6.3%	5.5%	6.4%	0.8%	21.4%
Upper San Gabriel River	2.7%	42.9%	6.5%	4.6%	7.9%	5.6%	1.2%	25.1%
Upper Santa Clara River	5.1%	7.9%	1.6%	1.1%	2.5%	3.5%	2.1%	74.1%

1. Percentages do not total 100% due to small areas (<4%) of no data.

Surface Water Hydrology of EWMP Management Areas

The following sections describe major surface water hydrologic features in each EWMP Management Area.

Ballona Creek

The Ballona Creek watershed covers more than 81,000 acres, over 78,000 of which fall in the EWMP Area within the jurisdiction of Municipal Separate Storm Sewer System (MS4) Permittees. The Los Angeles County Flood Control District (LACFCD) owns and operates drainage infrastructure within incorporated and unincorporated areas in the watershed. Land use within the EWMP Area is primarily urbanized (82.5%), with most urbanized areas (59.2%) in multi- or single-family housing.

Ballona Creek and Estuary are collectively approximately 9.5 miles long and divided into three hydrologic units: Reach 1, which extends for 2 miles from Cochran Avenue to National

Boulevard (channelized); Reach 2, which extends for about 4 miles from National Boulevard to Centinela Avenue, where Ballona Estuary starts (channelized); and Ballona Estuary, which starts at Centinela Creek and extends for 3.5 miles to the Pacific Ocean (soft-bottom channel, tidally influenced). Major tributaries to Ballona Creek include Sepulveda Canyon Channel (Reach 2) and Centinela Creek (Ballona Estuary). Other water bodies in the watershed include the Del Rey Lagoon and the Ballona Wetlands, which are both connected to the Ballona Estuary through tide gates. The Ballona Wetlands, which are the site of a major multiagency restoration project, encompass approximately 626 acres (541 acres of wetlands and 85 acres of roads, parking lots, levees, and other structures). Approximately 460 acres of the Ballona Wetlands are located within the Ballona Creek watershed; the remaining portion is located in the Marina Del Rey watershed. The Ballona Wetlands are owned and/or managed by the California Department of Fish and Wildlife (CDFW) and the State Land Commission and, as such, are not subject to MS4 Permit or EWMP requirements.

Beach Cities

The Beach Cities EWMP Area covers over 20,000 acres divided into three watersheds: Santa Monica Bay (38.4% of the EWMP Area), Dominguez Channel (36.1%), and Machado Lake watershed (35.5%). This watershed is the most relatively urbanized of the EWMP areas as 93.9% of the watershed is urbanized. Significantly, almost a quarter of the EWMP Area is commercial and industrial lands.

The Dominguez Channel watershed within the Beach Cities EWMP includes drainage from the Torrance Carson Channel (Torrance Lateral). The Machado Lake watershed includes drainage from the Wilmington Drain, an LAFCD facility. Additional information about the Dominguez Channel and Machado Lake watersheds is provided below in the Dominguez Channel EWMP description. Beaches within the Beach Cities EWMP Area do not have any storm drain infrastructure that collects and discharges beach runoff directly to Santa Monica Bay and are therefore considered non-point sources, which are not subject to the MS4 Permit or EWMP requirements. Similarly, the Hermosa Beach and Manhattan Beach piers are not part of the MS4; they are non-point sources excluded from the MS4 Permit scope and therefore the EWMP.

Dominguez Channel

Dominguez Channel is a 15.7-mile-long waterway that drains 133 square miles of the Los Angeles Basin. The lower half of this watershed— approximately 37,600 acres—is subject to the Dominguez Channel EWMP. This EWMP Area is highly urbanized (91.9%), with over a third of the area in commercial and industrial uses.

The EWMP Area includes three receiving water bodies: Machado Lake, Dominguez Channel, and the Los Angeles Harbor. Machado Lake is a 40-acre freshwater lake/reservoir that impounds stormwater runoff from the Wilmington Drain, an LACFCD facility. Approximately 3,000 feet of the drain immediately upstream of Machado Lake is earthen-lined and vegetated; the remainder upstream is channelized. Immediately downstream of the lake is a 63-acre seasonal freshwater marsh. The portion of Dominguez Channel within the EWMP Area is composed of 3 miles of the lined channel between Imperial Highway near Interstate 105 to Vermont Avenue near Interstate 110, and 2.2 miles of the unlined tidal estuary channel downstream of Vermont Avenue. The

EWMP Area also includes 1.8 miles of the Torrance Carson Channel, or Torrance Lateral, which drains into the Dominguez Channel estuary. The estuary drains into the northeast side of the Consolidated Slip, the uppermost section of the tidal Los Angeles Harbor. The Los Angeles Inner Harbor within the EWMP Area covers about 3,000 acres and includes portions of both the Los Angeles and Long Beach Harbors. Other portions of the Los Angeles Harbor covered in the EWMP are the Fish Harbor (91 acres), and the inner and outer portions of Cabrillo Beach. Inner Cabrillo Beach (82 acres) on the north side of the peninsula (west of Fish Harbor) is considered to be a bay/harbor, while Outer Cabrillo Beach (~ 0.58 miles long) to the south is considered to be a coastal shoreline.

Malibu Creek

The Malibu Creek Watershed drains over 75,000 acres of the Santa Monica Mountains north of Los Angeles and is the largest contributing watershed to Santa Monica Bay. Over 42,000 acres of this watershed within Los Angeles County comprise the Malibu Creek EWMP Area. Unincorporated Los Angeles County lands account for 70% of the EWMP Area; this does not include federal lands within the Santa Monica Mountains National Recreation Area, state lands within Malibu Creek State Park, or lands managed by the Santa Monica Mountains Conservancy. Almost 80% of the EWMP Area is open space, with most development centered around the communities of Agoura Hills and Calabasas.

Major tributaries to Malibu Creek include Cold Creek, Las Virgenes Creek, Medea Creek, and Potrero Valley Creek. The creek terminates at the Pacific Ocean at Malibu Lagoon, which is currently the location of a multi-agency habitat and water quality enhancement project. The watershed is characterized by steep topography and densely vegetated ravines typical of undeveloped coastal mountains, which create many dangerous and inaccessible areas that cannot be safely monitored and are not suitable for water quality Best Management Practices (BMPs). In addition, the Monterey/Modelo formation outcrops in the watershed are natural sources of sulfate, phosphate, metals, and selenium, and are believed to contribute to the Malibu Creek Watershed water quality impairments. The development of the Malibu Creek EWMP is closely coordinated with that of the North Santa Monica Bay EWMP, which is responsible for lands to the west and east of the Malibu Creek Watershed Management Area.

Marina del Rey

Marina del Rey is the largest man-made small craft harbor in the world, and is a small contributing watershed to Santa Monica Bay. The Marina del Rey Harbor is open to the Santa Monica Bay through the main channel and shares a common breakwater with Ballona Creek. Of the 1400-acre EWMP Area, 92.7% is urbanized, with relatively high proportions of multifamily residential (27.4%) and commercial (19.1%) lands.

Four subwatersheds drain to the harbor: Subwatershed 1, composed primarily of unincorporated County lands immediately surrounding the main harbor; Subwatershed 2, which includes the Venice Canals and Ballona Lagoon that discharge into the main channel; Subwatershed 3, a small area north of the main harbor that drains into the harbor via the Boone Olive Pump Plant; and Subwatershed 4, which drains City of Los Angeles and Culver City lands into the 10-acre Oxford Basin, which is connected to the harbor via storm drains and tide gates. The 2004 Marina del Rey

Small Drain Survey completed for the Los Angeles County Department of Beaches and Harbors (LACDBH) identified approximately 724 small outfalls that discharge directly into harbor, the majority of which serve the individual parcels and small roads among the basins. LACDBH is responsible for approximately 700 of these outfalls associated with leased parcel sites, and the LACFCD is responsible for 20 outfalls and two storm drain inlets that flow into the Oxford Basin. No MS4 Permittee was identified for the remaining storm drains. A small section of the Ballona Wetlands drains into Subwatershed 1, but, as state lands, it is not subject to the MS4 Permit or EWMP process.

North Santa Monica Bay

The North Santa Monica Bay EWMP Area includes over 55,000 acres within Santa Monica Bay Jurisdictional Groups (JGs) 1 and 4, and the portion of 9 within the City of Malibu's borders. It does not include federal lands within the Santa Monica Mountains National Recreation Area, state lands within Malibu Creek State Park, or lands managed by the Santa Monica Mountains Conservancy. Similar to the Malibu Creek EWMP Area, most of the watershed is undeveloped open space—93.1%, more than any other EWMP Area. Most development is single-family housing within the incorporated boundaries of the City of Malibu. Like the Malibu Creek EWMP Area, the North Santa Monica Bay EWMP Area is characterized by steep topography and densely vegetated ravines typical of undeveloped coastal mountains.

The North Santa Monica Bay EWMP Area includes portions of 6 watersheds, 18 subwatersheds, and 28 coastal streams that all drain directly to Santa Monica Bay and are thus subject to the provisions of the California Ocean Plan (SWRCB, 2012). The Ocean Plan regulates waste discharges to protect the quality of ocean waters for use and enjoyment by the general public. In particular, the Ocean Plan designates Areas of Special Biological Significance (ASBS), which are areas requiring special protection of species or biological communities to the extent that maintenance of natural water quality is ensured. The area from Laguna Point to Latigo Point offshore of a portion of the North Santa Monica Bay EWMP Area is designated as ASBS 24. North Santa Monica Bay EWMP agencies requested and received an exemption from the Ocean Plan (SWRCB Resolution No. 2012-0012) that establishes criteria for allowable discharge of stormwater and nonpoint source pollution to Santa Monica Bay.

Palos Verdes Peninsula

The Palos Verdes Peninsula is situated in the southwestern portion of Los Angeles County atop the Palos Verdes Hills, which are bounded to the north by the City of Torrance, to the east by the City of Los Angeles, and to the south and west by the Pacific Ocean. The EWMP Area covers over 14,000 acres of incorporated, unincorporated (Los Angeles County), and LACFCD lands throughout the peninsula (see Figure 3.8-1); it does not include the City of Rolling Hills, which is participating in the peninsula's Coordinated Integrated Monitoring Program (CIMP). Most of the watershed's land use is distributed between single family housing (55.8%) and open space (30.2%), and the area is particularly known for its equestrian and golf facilities.

The EWMP Area is divided into two watersheds: (1) the Santa Monica Bay Watershed and (2) the Greater Dominguez Channel Watershed Management Area, which is further subdivided into two subwatersheds, the Los Angeles Harbor Subwatershed and the Machado Lake Subwatershed

(previously described in detail under the Dominguez Channel EWMP). A drainage divide dissects the Peninsula from the northeast to the southwest with the westerly portion (63% of the EWMP Area) draining into Santa Monica Bay and the easterly portion draining into Machado Lake (22%) and the Los Angeles Harbor (15%) subwatersheds. Water drains from the peninsula to receiving waters through a combination of vegetated open channels and storm drains.

Rio Hondo/San Gabriel River

The Rio Hondo/San Gabriel River EWMP Area includes over 26,000 acres of land within the eastern portion of the Los Angeles River watershed (tributary to Rio Hondo) (38% of the EWMP Area) and the upper portion of the urban San Gabriel River watershed (62%). The EWMP Area does not include federal lands that are part of Angeles National Forest. Approximately 73% of the EWMP Area is urbanized, with single-family housing comprising 47%. The remaining quarter of the area is undeveloped open space, mostly along lower slopes of the San Gabriel Mountains. Both Rio Hondo and the San Gabriel River are heavily urbanized, channelized, and managed systems.

Rio Hondo is a tributary of the Los Angeles River, which receives drainage from the Rio Hondo/San Gabriel River MS4 Permittees via several smaller tributaries: Arcadia Wash, Little Santa Anita Wash, Monrovia Canyon Wash, and Sawpit Wash. Prior to draining to the Rio Hondo, the Santa Anita and Sawpit Washes drain to Peck Road Water Conservation Park (a.k.a. Peck Road Lake), which then drains to the Rio Hondo. Peck Road Lake is owned by the LACFCD and maintained by the Los Angeles County Department of Parks and Recreation.

Reach 5 of the San Gabriel River receives drainage from Little Dalton Wash, Big Dalton Wash, and San Dimas Wash. About 4 miles below the mouth of the San Gabriel Canyon is the Santa Fe Dam and Reservoir, which is operated and maintained by the LACFCD through an easement with the U.S. Army Corps of Engineers (USACE). Both the Rio Hondo and San Gabriel River flow into the Whittier Narrows Reservoir upstream and may merge behind the reservoir during large storm events. Flows from the upper watershed are directed to spreading grounds located in and adjacent to the Rio Hondo and San Gabriel Rivers.

Santa Monica Bay Jurisdictions 2 + 3

The EWMP Area for Santa Monica Bay Jurisdictions 2 + 3 includes over 25,000 acres of land north and northwest of the Marina del Rey EWMP Area and East of the North Santa Monica Bay EWMP Area. Approximately half of the area is composed of mostly undeveloped lands within the Santa Monica Mountains; the other half includes much more urban areas in the cities of Los Angeles, Santa Monica, and El Segundo. The EWMP Area does not include state lands within Topanga State Park or those managed by the Santa Monica Mountains Conservancy, federal lands within the Santa Monica Mountains National Recreation Area, or Chevron lands at their facility in El Segundo.

Subwatersheds within the Santa Monica Bay EWMP Group Area include the mostly open space Castle Rock, Pulga Canyon, Temescal Canyon, and Santa Monica Canyon Subwatersheds characterized by steep topography and densely vegetated ravines typical of undeveloped coastal mountains. Other subwatersheds include the more urbanized Dockweiler and Santa Monica

subwatersheds, which are dominated by residential, commercial, and industrial uses.

Upper Los Angeles River

The area considered in the Upper Los Angeles River EWMP covers approximately 479 square miles (over 308,000 acres), which is more than half of the total area of the entire Los Angeles River watershed. A little over 75% of the watershed is urbanized, with slightly more than half of the watershed comprising multi- and single-family residential housing. The watershed includes multiple facilities owned and operated by LACFCD as well as multiple major transportation corridors.

The Los Angeles River is approximately 55 miles long, and five of six reaches lie within the Upper Los Angeles River EWMP Area. The natural hydrology of the Los Angeles River watershed has been significantly altered by urbanization, channelization, and the construction of dams and flood control reservoirs. The river and many of its tributaries are lined with concrete for most or all of their length. Soft-bottom segments of the river occur where groundwater upwelling prevents armoring of the river bottom. The river is segmented into six reaches by the Basin Plan as follows:

- Reach 6 begins at the headwaters of the Los Angeles River (the confluence of Arroyo Calabasas and Bell Creek) and extends to Balboa Boulevard.
- Reach 5 runs from Balboa Boulevard through the Sepulveda Basin.
- Reach 4 runs from Sepulveda Dam to Riverside Drive.
- Reach 3 runs from Riverside Drive to Figueroa Street.
- Reach 2 runs from Figueroa Street to Carson Street.
- Reach 1 runs from Carson Street to the estuary.

Reach 1 is outside the boundaries of the Upper Los Angeles River EWMP but is a receiving water body for the entire EWMP Area. Major tributaries to the Upper Los Angeles River include Aliso Canyon Creek, Bell Creek, Bull Creek, Tujunga Wash, Burbank Western Channel, Arroyo Seco, Rio Hondo, and Compton Creek. Other water bodies covered in the EWMP include Echo Park Lake, Legg Lake, and Lake Calabasas. The Los Angeles River is the focus of a proposed multi-agency restoration effort that aims to improve habitat, water quality, flood management, and recreational/transportation amenities along much of the length of the river. USACE recently approved $1 billion in funding to restore 11 miles of the river from downtown through Elysian Park; this first phase would restore 719 acres of habitat and restore the river's confluence with Verdugo Wash.

Upper San Gabriel River

The Upper San Gabriel River EWMP Area includes almost 68,000 ac of land that are not covered within the Rio Hondo/San Gabriel River EWMP Area described above. The EWMP Area does not include state lands or federal lands that are part of Angeles National Forest. Similar to the Upper Los Angeles River watershed, approximately three quarters of the Upper San Gabriel River EWMP Area is urbanized, with approximately half in multi- and single-family housing. More than half of the area is unincorporated lands within the jurisdiction of Los Angeles County.

As previously mentioned, the San Gabriel River is a heavily managed system, with abundant channelization, dams, and other flood management infrastructure.

Water bodies within the EWMP area include Thompson Wash, Little Dalton Wash, Big Dalton Wash, San Dimas Creek, Walnut Creek Wash, Puente Creek, San Jose Creek Reaches 1 and 2, San Gabriel River Reaches 2 through 5, and the North Fork of Coyote Creek. Receiving waters downstream of the EWMP area include Reach 1 of the San Gabriel River, Coyote Creek, and the San Gabriel Estuary. Additionally, there are unnamed tributaries draining unincorporated County areas that discharge into Coyote Creek and Puddingstone Reservoir.

Upper Santa Clara River

The Upper Santa Clara EWMP Area includes over 121,400 ac of lands within unincorporated Los Angeles County and the City of Santa Clarita. Roughly three quarters of the watershed is undeveloped open space bounded by the San Gabriel and Santa Susana Mountains; the remaining quarter includes the urbanized portions of the City of Santa Clarita and its environs. The EWMP Area does not include the majority of the upper river's watershed located within state and federal lands, nor the downstream watershed within Ventura County.

The Santa Clara River is one of the last primarily "natural" rivers in Southern California, with relatively few dams/reservoirs in its watershed (Pyramid Lake and Castaic Lake are notable exceptions, though neither are regulated through this EWMP). Though much of the river is bounded by flood control levees, no portions of it are channelized into concrete structures like more urban rivers. In years of significant rainfall, ephemeral springs and year-round flows exist in some tributaries and natural upstream areas. The portion of the river downstream within Ventura County is a target for enhancement by the California Coastal Conservancy and other agencies; therefore, actions in the upper watershed that affect flows downstream must be carefully considered.

Beneficial Uses

Table F-2 on the following page summarizes the beneficial uses for major hydrologic features within each of the 12 EWMP Management Areas. The TMDLs described in Table F-3 are meant to maintain or improve these beneficial uses.

Total Maximum Daily Loads

Table F-3 on page 13 summarizes the relevant TMDLs for each Permittee within each EWMP Area. Some TMDLs, such as those for Santa Monica Bay, are applicable to multiple EWMP Areas.

TABLE F-2
BASIN PLAN BENEFICIAL USES

EWMP Area & Water Body	REC-1	REC-2	HFS	MUN	IND	PROC	AGR	GWR	NAV	COMM	WARM	COLD	EST	MAR	WILD	BIOL	RARE	MIGR	SPWN	SHELL	WET
Ballona Creek																					
Ballona Creek Estuary	E	E							E	E			E	E	E		E[e]	E[f]	E[f]	E	
Ballona Lagoon	E	E							E	E			E	E	E		E[e]	E[f]	E[f]	E	E
Ballona Wetlands	E	E											E		E		E[e]	E[f]	E[f]		E
Del Rey Lagoon	E	E							E	E			E		E		E[e]	E[f]	E[f]		E
Ballona Creek Reach 2	P[s,au]	E	Y[av]	P*							P				E						
Ballona Creek Reach 1	P[s,au]	E	Y[av]	P*							P				E						
Beach Cities																					
Santa Monica Bay Nearshore + Offshore	E	E			E				E	E				E	E	E	E	E	E	E	
Manhattan Beach	E	E							E	E				E	E				P	E	
Hermosa Beach	E	E							E	E				E	E				E[as]	E	
King Harbor	E	E			E				E	E				E	E		E				
Redondo Beach	E	E			E				E	E				E	E		E	E	E[as]	E	
Torrance Beach	E	E			E				E	E				E	E			E	E[as]	E	
Dominguez Channel	P*	E	E	P							P				P		E				
Torrance Lateral	P*	E	E	P							P				P		E				
Dominguez Channel																					
Dominguez Channel (lined)	P	E	Y[av]								P				P		E				
Dominguez Channel Estuary (unlined)	E	E							P	E			E	E	E		E	E	E		
Torrance Lateral	P*	E		P							P				P		E				
Inner Harbor	P	E																			
Public Beach Areas	E	E																			
Malibu Creek																					
Malibu Lagoon	E	E								E			E	E	E		E[e]	E[f]	E[f]		E
Malibu Creek	E	E		P*							E	E			E		E	E	E		E
Cold Creek	E	E		P*								P			E		E		P		E
Las Virgenes Creek	E[m]	E		P*							E	P			E		E	P	P		E
Century Reservoir	E	E		P*							E				E						E
Malibou Lake	E	E		P*						E	E				E		E				E
Madea Creek Reach 1	I[m]	I		P*				I			I				E		E				E
Madea Creek Reach 2	E[m]	E		I*				I			E				E						E
Lindero Creek Reach 1	I	I		P*							I				E						
Lindero Creek Reach 2	I	I		P*							I				E						
Triunfo Creek Reach 1	I[m]	I		P*							I				E						
Triunfo Creek Reach 2	I[m]	I		P*				I			I				E		E				
Westlake Lake	E	E		P*						E	E				E						
Potrero Valley Creek	I	I		P*				I			P				E						
Lake Eleanor Creek	I	I		P*				I			I				E						
Lake Eleanor	E	E		P*				E			E				E		E				E
Las Virgenes (Westlake) Reservoir	P[k,v]	E		E	E	E	E				P				E						
Hidden Valley Creek	I	I		I*				I			I				E						
Lake Sherwood	E	E		P*				E		E	E				E						E
Marina del Rey																					
Harbor	E	E							E	E				E	E					E	
Public Beach Access	E	E							E	E				E	E		E				
All Other Areas	P	E							E	E				E	E		E			E	
Entrance Channel	E	E							E	E				E	E		E			E	
North Santa Monica Bay Coastal Watersheds																					
Malibu Lagoon	E	E							E				E	E	E		E	E	E		E
Malibu Creek	E	E		P*							E	E			E		E	E	E		E
Arroyo Sequit	E	E		P*				I			E	E			E		E	E	E		E
Nicholas Canyon Creek	I	I		P*							I				E						
Los Alisos Canyon Creek	I	I		P*							I				E		E				
Lechuza Canyon Creek	I	I		P*							I				E						

TABLE F-2
BASIN PLAN BENEFICIAL USES

EWMP Area & Water Body	REC-1	REC-2	HFS	MUN	IND	PROC	AGR	GWR	NAV	COMM	WARM	COLD	EST	MAR	WILD	BIOL	RARE	MIGR	SPWN	SHELL	WET
Encinal Canyon Creek	I	I		P*							I				E		E				
Trancas Canyon Creek	E	E		E*							E				E		E				
Zuma Canyon Creek	E	E		E*							E	E			E		E	P	P		
Ramirez Canyon Creek	I	I		I*							I				E				P		
Escondido Canyon Creek	I	I		I*							I				E		E				
Latigo Canyon Creek	I	I		I*							I				E		E				
Puerco Canyon Creek	I	I		I*							I				E						
Solstice Canyon Creek	E	E		E*							E				E			P	P		
Corral Canyon Creek	I	I		I*							I				E						
Carbon Canyon Creek	I	I		P*							I				E						
Las Flores Canyon Creek	I	I		P*							I				E						
Piedra Gorda Canyon Creek	I	I		P*							I				E						
Pena Canyon Creek	I	I		P*							I	E			E						
Tuna Canyon Creek	I	I		P*							I				E						
Topanga Canyon Creek	I	I		P*							E	E			E			P	I		
Palos Verdes Peninsula																					
Los Angeles Coastal					E				E												
Santa Monica Bay Nearshore	E	E			E				E	E					E	E	E^{e}	E^{f}	E^{f}	E	
Machado Lake	E	E		P*							E				E		E				E
Inner LA Harbor	E	E			E				E	E							E^{e}			P	
Fish Harbor	E	E			E				E	E							E			P	
Outer LA Harbor	E	E							E	E							E			P	
Rio Hondo/San Gabriel River																					
Arcadia Wash	P	I		P*				I			P				P						
Little Santa Anita Canyon Creek				P*				I			I				E						
Santa Anita Wash	E^{1},P_{2}	E		P*				E^{1},I^{2}			E^{1},P_{2}				E^{1},P_{2}		E				
Monrovia Canyon Wash	I	I		I				I			I				E						E
Sawpit Wash	I	I		I				I			I				E						
Rio Honda Reach 3	I	E		P*				I			P				I		E				E
Peck Road Park Lake[4]	P^{3}	E		P*				I			P				I						
San Gabriel River Reach 5	E	E		E	E	E	E	E			E	E			E						
Little Dalton Wash	P^{3}	I		P*				I			P				P						
Big Dalton Wash	P^{3}	I		P*				I			P				P						
San Dimas Wash	I^{3}	I		P*				E^{1},I^{2}			I				E		E^{2}				
Santa Fe Dam Park Lake	P	I		P*				I			I				E						E
Santa Monica Bay Jurisdictions 2+3																					
Santa Monica Bay - Nearshore Zone^	E	E			E				E	E				E	E	E^{an}	E^{e}	E^{f}	E^{f}	E^{ar}	
La Pulga Canyon[a]					E				E	E				E	E	E^{an}	E^{e}	E^{f}	E^{f}	E^{ar}	
Temescal Canyon[a]					E				E	E				E	E	E^{an}	E^{e}	E^{f}	E^{f}	E^{ar}	
Santa Monica Canyon Channel	P^{3}	I		P*							P				P						
Rustic Canyon Creek	I	I		P*							I				E						
Sullivan Canyon Creek	I	I		P*							I				E						
Mandeville Canyon Creek	I	I		P*							I				E						
Santa Ynez Canyon	P^{3}	E		P*							I				E		E				
Quarry Canyon[a]	P^{3}	E		P*							I				E		E				
Trailer Canyon[a]	P^{3}	E		P*							I				E		E				
Will Rogers Beach	E	E							E	E				E	E				P	E	
Santa Monica Beach	E	E							E	E				E	E			E	E^{a3}	E	
Venice Beach	E	E							E	E				E	E		E	E	E^{a3}	E	

TABLE F-2
BASIN PLAN BENEFICIAL USES

EWMP Area & Water Body	REC-1	REC-2	HFS	MUN	IND	PROC	AGR	GWR	NAV	COMM	WARM	COLD	EST	MAR	WILD	BIOL	RARE	MIGR	SPWN	SHELL	WET
Dockweiler Beach	E	E			E				E	E				E	E				P		
Upper LA River[5]																					
LA River Reach 6	E	E	Y^{av}	P*	P			E			E				E						E
Dry Canyon Creek	I^{m}	I		P*				I			I				E						
McCoy Creek	I	I		P*				I			I				E						
Bell Creek	I^{m}	I	Y^{av}	P*				I			I				E						
Aliso Canyon Wash	I^{m}	I	Y^{av}	P*				I			I				E						
Bull Creek	I^{m}	I		P*				I			I				E						
LA River Reach 4+5	E	E	Y^{av}	P*	P			E			E				E						E
Pacoima Wash	P^{m}	E		P*				E			E				E		E				
Tujunga Wash	P^{m}	I	Y^{av}	P*				I			P	P			P						
LA River Reach 3	E	E	Y^{av}	P*	P			E			E				E						
Burbank Western Channel	P^{m}	I	Y^{av}	P*							P				P						
Verdugo Wash	P^{m}	I	Y^{av}	P*				I			P				P						
Arroyo Seco	I^{m}	I		P*							P				P						
LA River Reach 2	E^{s}	E	Y^{av}	P*	P			E			E				P						
Rio Honda Reach 2 + 3	I^{m}	E	Y^{av}	P*				I			P				I						
Rio Honda Reach 1	P^{m}	E	Y^{av}	P*				I			P				I						
Compton Creek	E^{s}	E		P*				E			E				E						E
LA River Reach 1	E^{s}	E	Y^{av}	P*	P	P		E			E			E	E		E	P	P	P^{s}	
Echo Park Lake	P	E		P*							P				E						
Legg Lake	E	E		P*				E			E				E						E
Upper San Gabriel River[5]																					
Thompson Wash	I^{m}	I	Y^{av}	P*				I			I				E						
Little Dalton Wash	P^{m}	I		P*				I			P				P						
Big Dalton Wash	P^{m}	I	Y^{av}	P*				I			P				P						
San Dimas Wash (Upper)	I^{m}	I		P*				E			I				E						
San Dimas Wash (Lower)	I^{m}	I	Y^{av}	P*				I			I				E						
Walnut Creek Wash	I^{m}	I		P*				I			I				E						E
Puente Creek	P	I		P*				I			P				P						
Upper San Gabriel Reach 5 (Santa Fe Dam to Huntington Dr.)	I^{m}	I	Y^{av}	P*				I			I				E						
Upper San Gabriel Reach 5 (Huntington Dr. to Van Tassel Cyn)	E	E		E	E	E	E	E			E	E			E		E				
Upper San Gabriel Reach 5 (Van Tassel Cyn to SG Reservoir)	E	E		E	E	E	E	E			E	E			E						
San Gabriel River Reach 3 + 4	I^{m}	I	Y^{av}	P*				I			I				E						
San Jose Creek Reach 1 + 2	P^{m}	I	Y^{av}	P*				I			I				E						
San Gabriel River Reach 2	E^{m}	E	Y^{av}	P*	P	P		I			I				E		E				
San Gabriel River Reach 1	E^{m}	E	Y^{av}	P*							P				P		E				
Coyote Creek	P^{m}	I	Y^{av}	P*	P	P					P				P		E				
San Gabriel River Estuary	E	E			E				E	E			E	E	E		E^{e}	E^{f}	E^{f}	P	
Puddingstone Reservoir	E	E		E*			E	E			E	E			E		E				
Upper Santa Clara River[5]																					
Santa Clara River Reach 5 + 6 + 7	E	E		P*	E	E	E	E			E				E		E				E
Santa Clara River Reach 4B	E	E		P*	E	E	E	E			E				E		E	E			E
Bouquet Canyon (SCR R6 to Vasquez Cyn)	E^{m}	E		E,I	E,I	P,I	P,I	E			E	E			E				P		E
Bouquet Canyon (above Vasquez Cyn)	E^{m}	E		P	P	P	E	E			E	E			E		E				E
Lake Elizabeth	E	E		P	P	P	P	P			E				E		E				
Mint Canyon	E^{m}	E		I*	I	I	I	I			I				E						

TABLE F-2
BASIN PLAN BENEFICIAL USES

EWMP Area & Water Body	REC-1	REC-2	HFS	MUN	IND	PROC	AGR	GWR	NAV	COMM	WARM	COLD	EST	MAR	WILD	BIOL	RARE	MIGR	SPWN	SHELL	WET
Piru Creek	E	E		P	E	E	E	E			E	E			E		E[g]	E	E		E
Munz Lake	E	E		P*	P	P	P	E			E				E						
Lake Hughes	E	E		P	P	P	P	P			E				E						
Castaic Lake	E	E		E	E	E	E	E			E	I			E		E		E		
Pyramid Lake	E	E		E	E	E	E	E			E	E			E		E				

E: Existing beneficial use

P: Potential beneficial use action would require a detailed analysis of the area.

I: Intermittent beneficial use

E,P, and I: shall be protected as required.

*: Asterisked MUN designations are designated under SB 88-63 and RB 89-03. Some designations may be considered for exemption at a later date.

a: Waterbodies are listed multiple times if they cross hydrologic area or subarea boundaries. Beneficial use designations apply to all tributaries to the indicated waterbody, if not listed separately.

b: Waterbodies designated as WET may have wetlands habitat associated with only a portion of the waterbody. Any regulatory action would require a detailed analysis of the area.

c: Coastal waterbodies which are also listed in inland Surface Waters Tables (2-1) or in Wetlands Table (2-4).

e: One or more rare species utilizes all ocean, bays, estuaries, and coastal wetlands for foraging and/or nesting.

f: Aquatic organisms utilize all bays, esturaries, lagoons, and coastal wetlands, to a certain extent, for spawning and early development. This may include migration into areas which are heavily influenced by freshwater inputs.

m: Access prevented by Los Angeles County Department of Public Works in concrete-channelized areas.

an:Areas of Special Biological Significance: along coast from Latigo Point to Laguna Point, Big Sycamore Canyon and Abalone Cove Ecological Reserves, and Point Fermin Marine Life Refuge.

ar: Areas exhibiting large shellfish populations include Malibu, Point Dume, Point Fermin, White Point and Zuma Beach.

as: Most frequently used grunion spawning beaches. Other beaches may be used as well.

au: The REC-1 use designation does not apply to recreational activities associated with the swimmable goal as expressed in the Federal Clean Water Act section 101(a)(2) and regulated under the REC-1 use in the Basin Plan, or the associated bacteriological objectives set to protect those activities. However, water quality objectives set to protect other REC-1uses associated with the fishable goal as expressed in the Federal Clean Water Act section 1010(a)(2) shall remain in effect for waters where the (au) footnote appears.

av: The High Flow Suspension only applies to water contact recreational activities associated with the swimmable goal as expressed in the federal Clean Water Act section 101(a)(2) and regulated under the REC-1 use, noncontact water recreation involving incidental water contact regulated under the REC-2 use, and the associated bacteriological objectives set to protect those activities. Water quality objectives set to protect (1) other recreational uses associated with the fishable goal as expressed in the federal Clean Water Act section 101(a)(2) and regulated under the REC-1 use and (2) other REC-2 uses (e.g., uses involving the aesthetic aspects of water) shall remain in effect at all times for waters where the (av) footnote appears.

1. Only applies to upper portion of the corresponding water body.

2. Only applies to lower portion of the corresponding water body.

3. Access prohibited by Los Angeles County Department of Public Works

4. Beneficial uses were not identified in the Basin Plan for Peck Road Park Lake. Therefore the downstream segment's uses (Rio Hondo Reach 1) apply based on Regional Board input (USEPA, 2012b).

5. Only major water bodies listed here; for complete list see Basin Plan.

TABLE F-3
RELEVANT TMDLS FOR EWMP PERMITTEES

Water Body	TMDL	LARWQCB Resolution #	Rio Honda/San Gabriel EWMP									SMB EWMP					Upper LA River EWMP																	Upper San Gabriel River EWMP							+		
			Arcadia	Azusa	Bradbury	Duarte	Monrovia	Sierra Madre	*Los Angeles*	*LA County*	*LAFCD*	*El Segundo*	Santa Monica	*Los Angeles*	*LA County*	*LAFCD*	Alhambra	Burbank	*Calabasas*	Glendale	*Hidden Hills*	La Canada Flintridge	*Los Angeles*	Montebello	Monterey Park	Pasadena	Rosemead	San Gabriel	San Marino	South Pasadena	Temple City	*LA County*	*LAFCD*	Baldwin Park	Covina	Glendora	Industry	La Puente	*LA County*	*LAFCD*	Santa Clarita	*LA County*	*LAFCD*
Ballona Creek	Trash	2004-023																																									
	Toxic Pollutants: Cadmium, Copper, Lead, Silver, Zinc, Chlordane, DDTs, PCBs, PAHs	2005-008, 2013-010																																								
	Ballona Creek Metals: Copper, Lead, Selenium, Zinc	2007-015, 2013-010																																								
	Wetlands Sediment & Invasive Veg	N/A (USEPA TMDL)																																								
	Estuary and Sepulveda Channel Bacteria: Total Coliform, Fecal Coliform, *Enterococcus*	2006-011, 2012-008																																								
Santa Monica Bay	Trash	2010-010										X	X	X	X	X																											
	DDTs and PCBs	N/A (USEPA TMDL)										X	X	X	X	X																											
	Bacteria (Wet + Dry Weather)	2002-004, -022 (amended by R12-007);										X	X	X	X	X																											
Dominguez Channel	Toxic Pollutants: Copper, Lead, Zinc, DDT, PAHs, PCBs, Cadmium, Chromium, Mercury	R11-008							X	X	X												X								X	X					X	X			
Machado Lake	Trash	2007-006																																								
	Nutrients: Nitrogen and Phosphorus	2008-006																																								
	Pesticides and PCBs: DDT, DDE, DDD, Chlordane, Dieldrin	R10-008																																								
LA Harbor	Bacteria: Total Coliform, Fecal Coliform, *Enterococcus*	2004-011																																								

TABLE F-3
RELEVANT TMDLS FOR EWMP PERMITTEES

Water Body	TMDL	LARWQCB Resolution #	Rio Honda/San Gabriel EWMP									SMB EWMP					Upper LA River EWMP																Upper San Gabriel River EWMP							+		
			Arcadia	Azusa	Bradbury	Duarte	Monrovia	Sierra Madre	*Los Angeles*	*LA County*	*LAFCD*	*El Segundo*	Santa Monica	*Los Angeles*	*LA County*	*LAFCD*	Alhambra	Burbank	*Calabasas*	Glendale	*Hidden Hills*	La Canada Flintridge	*Los Angeles*	Montebello	Monterey Park	Pasadena	Rosemead	San Gabriel	San Marino	South Pasadena	Temple City	*LA County*	*LAFCD*	Baldwin Park	Covina	Glendora	Industry	La Puente	*LA County*	*LAFCD*	Santa Clarita	*LA County*	*LAFCD*
Malibu Creek	Trash	2008-007																																								
	Nutrients: Nitrogen and Phosphorus	N/A (USEPA TMDL)																																							
Malibu Creek + Lagoon	Bacteria: Total Coliform, Fecal Coliform, *Enterococcus, E. coli*	R12-009																																							
	Sediment + Nutrients: Nitrogen and Phosphorus (Benthic Comm. Impairments)	N/A (USEPA TMDL)																																							
Marina Del Rey	Bacteria: Total Coliform, Fecal Coliform, *Enterococcus*	2003-012																																							
	Toxic Pollutants: Copper, Lead, Zinc, Chlordane, PCBs, DDT, DDE	2005-012 (amended by R14-004)																																							
LA River	Nitrogen	2003-009 (amended by R12-010)	X		X	X	X	X	X	X	X						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
	Trash	2007-012	X		X	X	X	X	X	X	X						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
	Metals: Copper, Lead, Zinc, Cadmium	2007-014 (amended by R10-003)	X		X	X	X	X	X	X	X						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
	Bacteria: *E. coli*	R10-007	X		X	X	X	X	X	X	X						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
LA Lakes	Peck Road Park Lake	N/A (USEPA TMDL)	X		X	X	X	X	X	X	X												X								X	X										
	Legg Lake																						X								X	X										
	Legg Lake Trash																														X	X										
	Lake Calabasas																						X								X	X										
	Echo Park Lake																						X								X	X										
	Puddingstone Reservoir																																					X	X			
	Santa Fe Dam Park Lake																																					X	X			

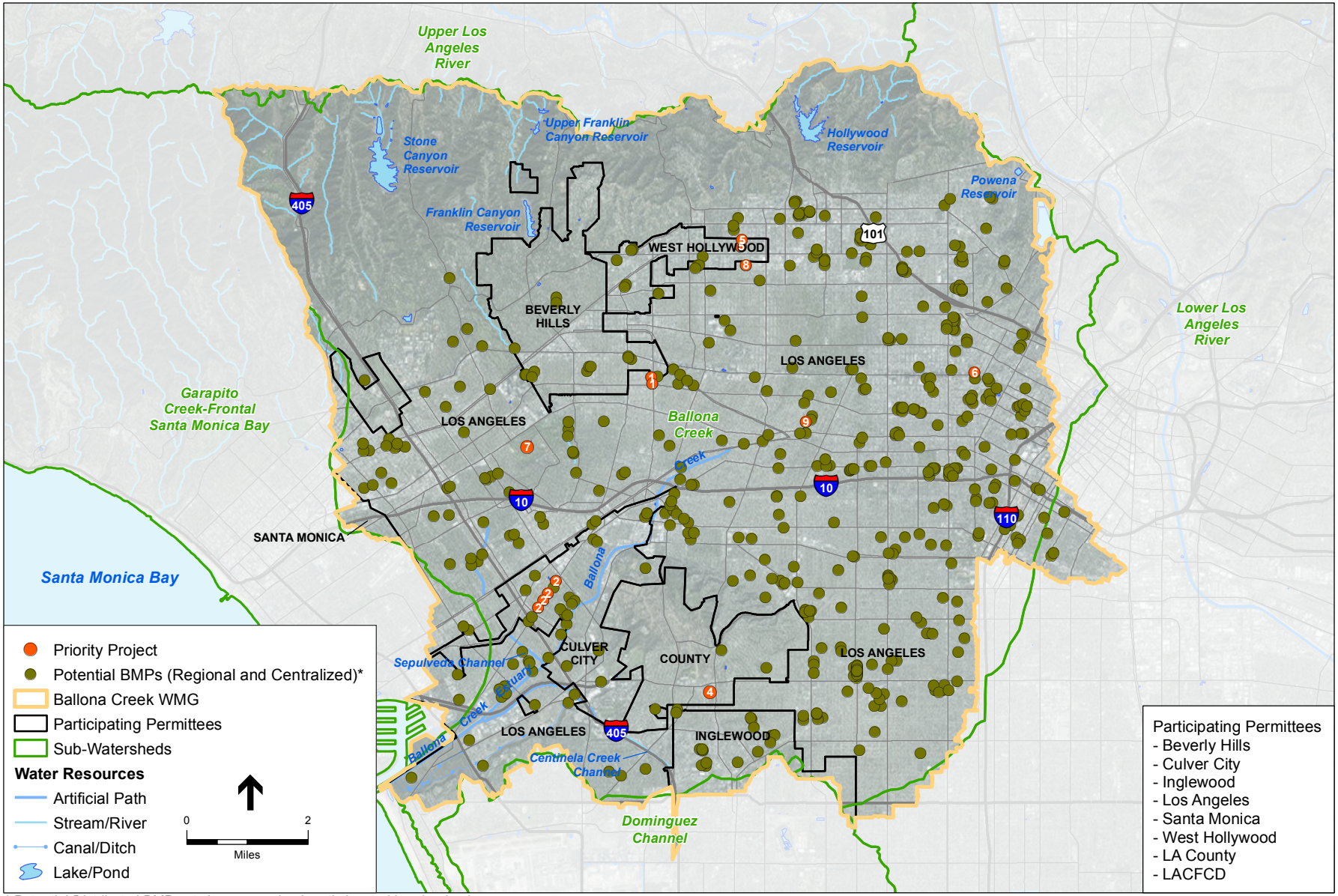
TABLE F-3
RELEVANT TMDLS FOR EWMP PERMITTEES

Water Body	TMDL	LARWQCB Resolution #	Rio Honda/San Gabriel EWMP									SMB EWMP					Upper LA River EWMP																	Upper San Gabriel River EWMP							+		
			Arcadia	Azusa	Bradbury	Duarte	Monrovia	Sierra Madre	*Los Angeles*	*LA County*	*LAFCD*	*El Segundo*	Santa Monica	*Los Angeles*	*LA County*	*LAFCD*	Alhambra	Burbank	*Calabasas*	Glendale	*Hidden Hills*	La Canada Flintridge	*Los Angeles*	Montebello	Monterey Park	Pasadena	Rosemead	San Gabriel	San Marino	South Pasadena	Temple City	*LA County*	*LAFCD*	Baldwin Park	Covina	Glendora	Industry	La Puente	*LA County*	*LAFCD*	Santa Clarita	*LA County*	*LAFCD*
San Gabriel River	Metals: Copper, Lead, Zinc, Selenium	2006-014 (amended by R13-004)	X	X	X	X	X			X	X																						X	X	X	X	X	X	X			
Santa Clara River	Nitrogen	2003-011																																						X	X	X
	Chloride	2008-012 (amended by R14-010)																																						X	X	X
	Bacteria: *E. coli*	R10-006																																						X	X	X
Lake Elizabeth	Trash	2007-009																																							X	

1 Italics indicate Permittees within multiple EWMP areas.
2. Table does not note TMDLs that are applicable to Permittees outside the EWMP Process.

Appendix G
EWMP Proposed BMP and Priority Project Data

ESA



** Potential Distributed BMP not shown - predominantly located in urbanized areas*

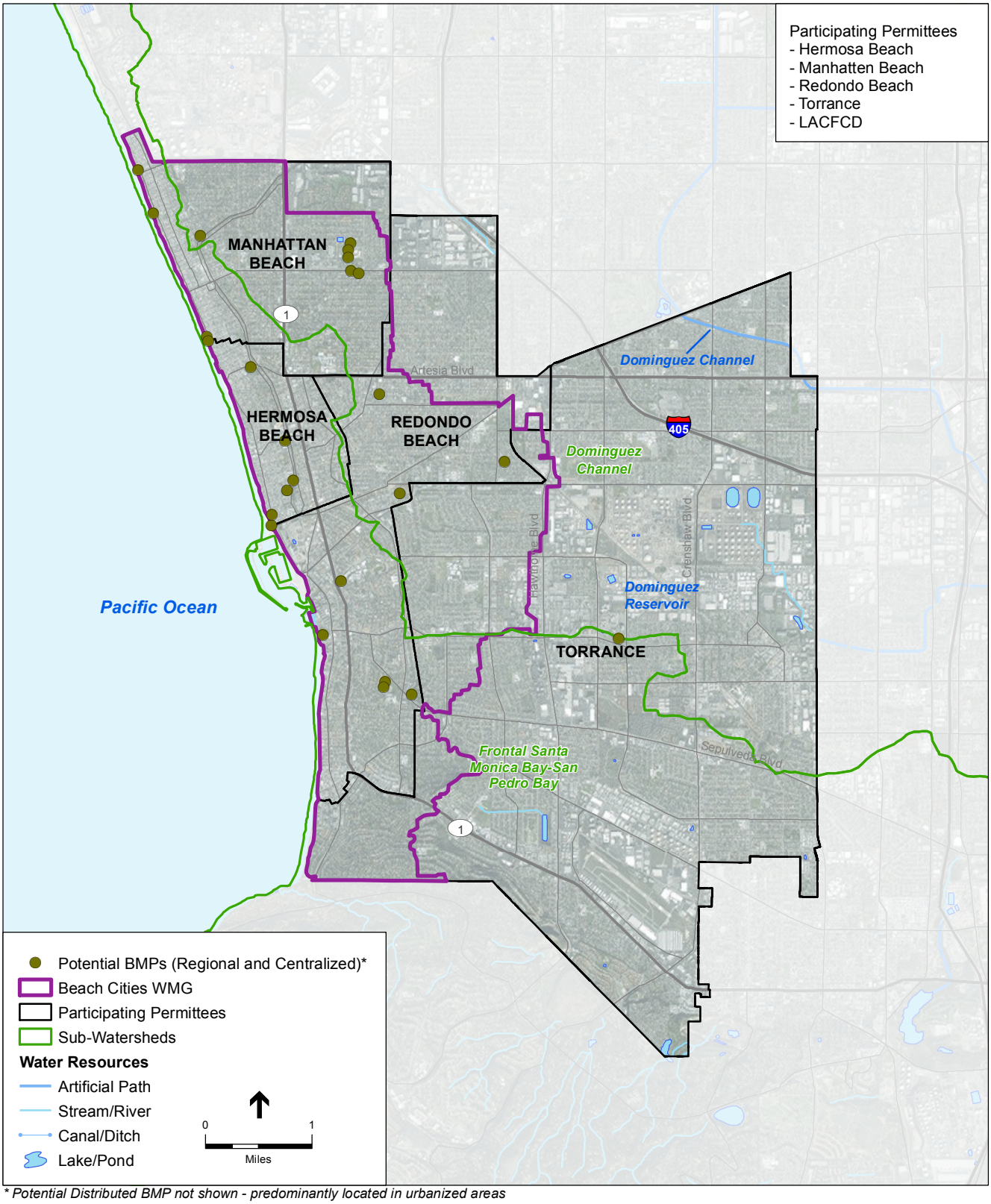
SOURCE: ESRI; National Hydrology Dataset.

LA County PEIR EWMP . 140474

Figure A

Ballona Creek

Watershed Management Group



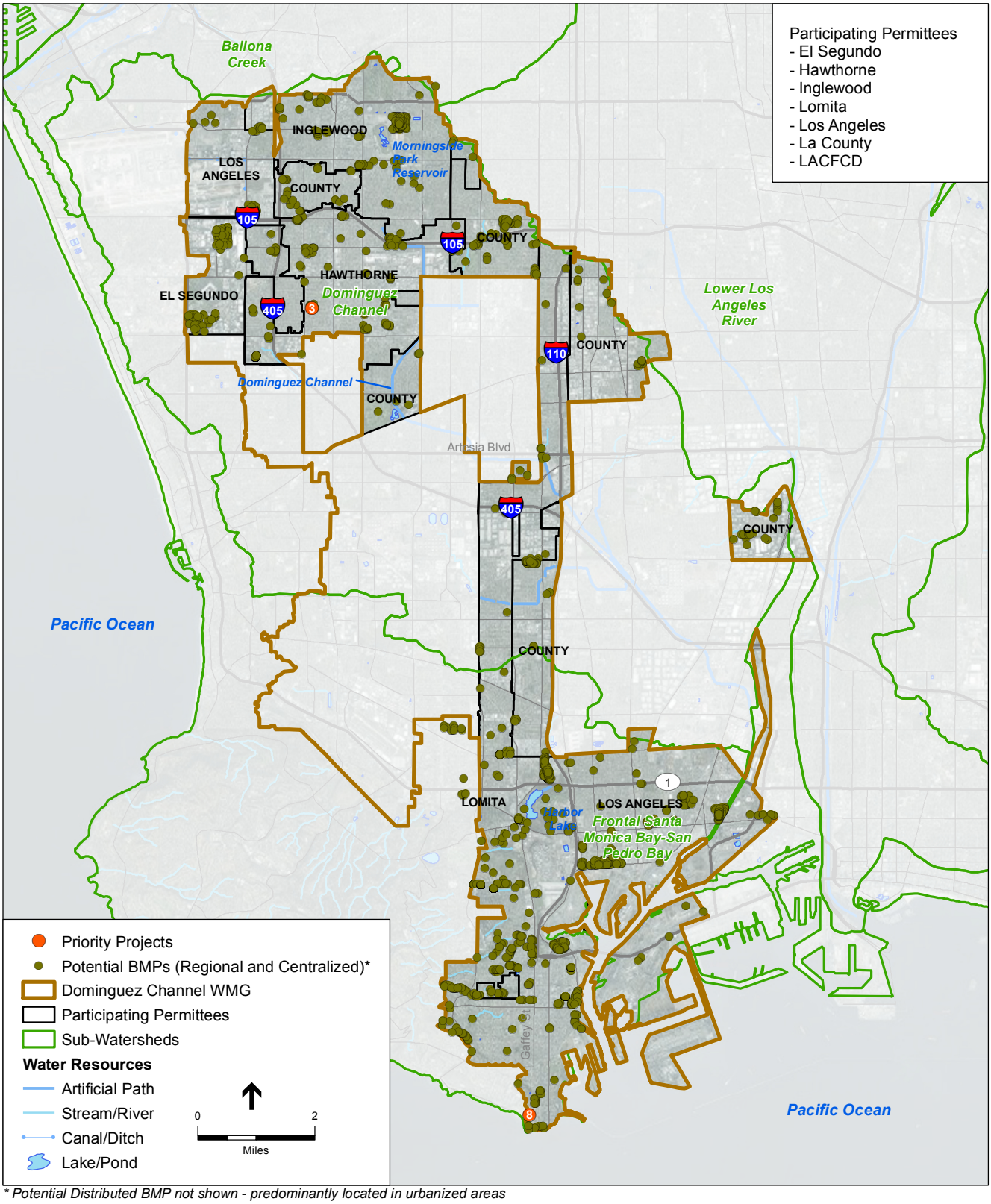
** Potential Distributed BMP not shown - predominantly located in urbanized areas*
** Prioirty Projects have yet to be determined*

SOURCE: ESRI; National Hydrology Dataset.

LA County PEIR EWMP . 140474

Figure B

Beach Cities Watershed Management Group



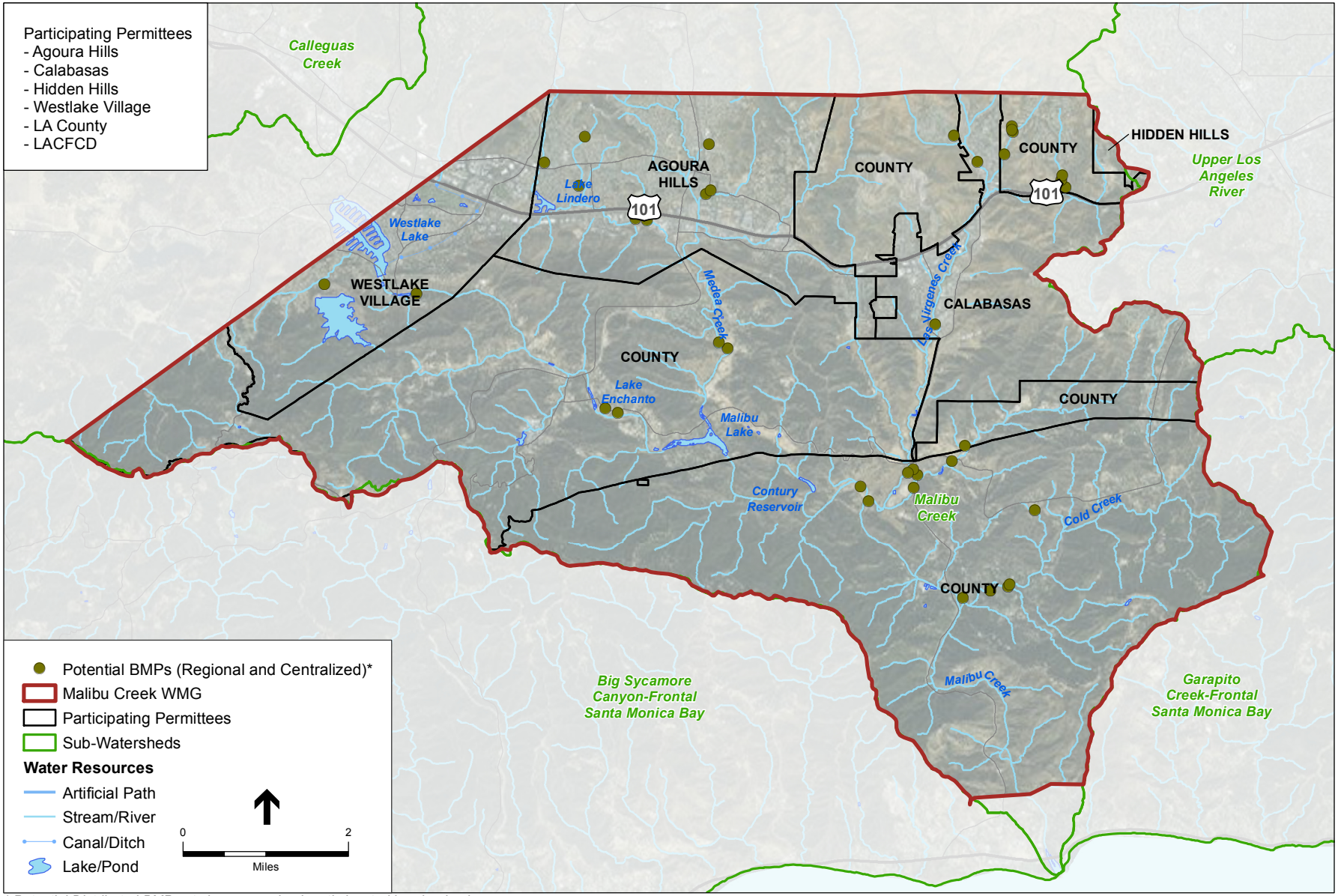
** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: ESRI; National Hydrology Dataset.

LA County PEIR EWMP . 140474

Figure C

Dominguez Channel Watershed Management Group



** Potential Distributed BMP not shown - predominantly located in urbanized areas*

** Prioirty Projects have yet to be determined*

SOURCE: ESRI; National Hydrology Dataset.

LA County PEIR EWMP . 140474

Figure D

Malibu Creek

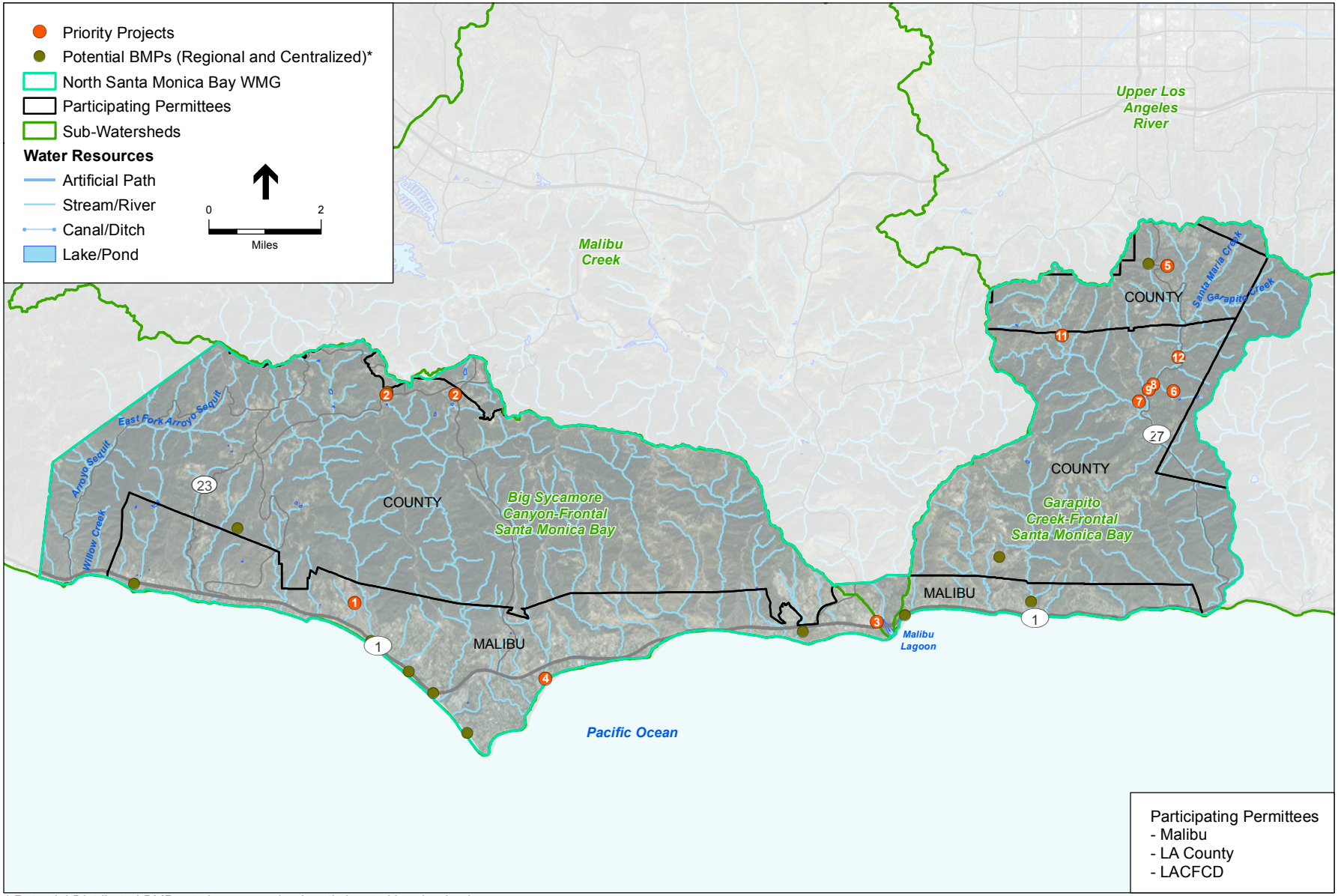
Watershed Management Group

SOURCE: ESRI; National Hydrology Dataset.

LA County PEIR EWMP . 140474

Figure E

Marina del Rey
Watershed Management Group



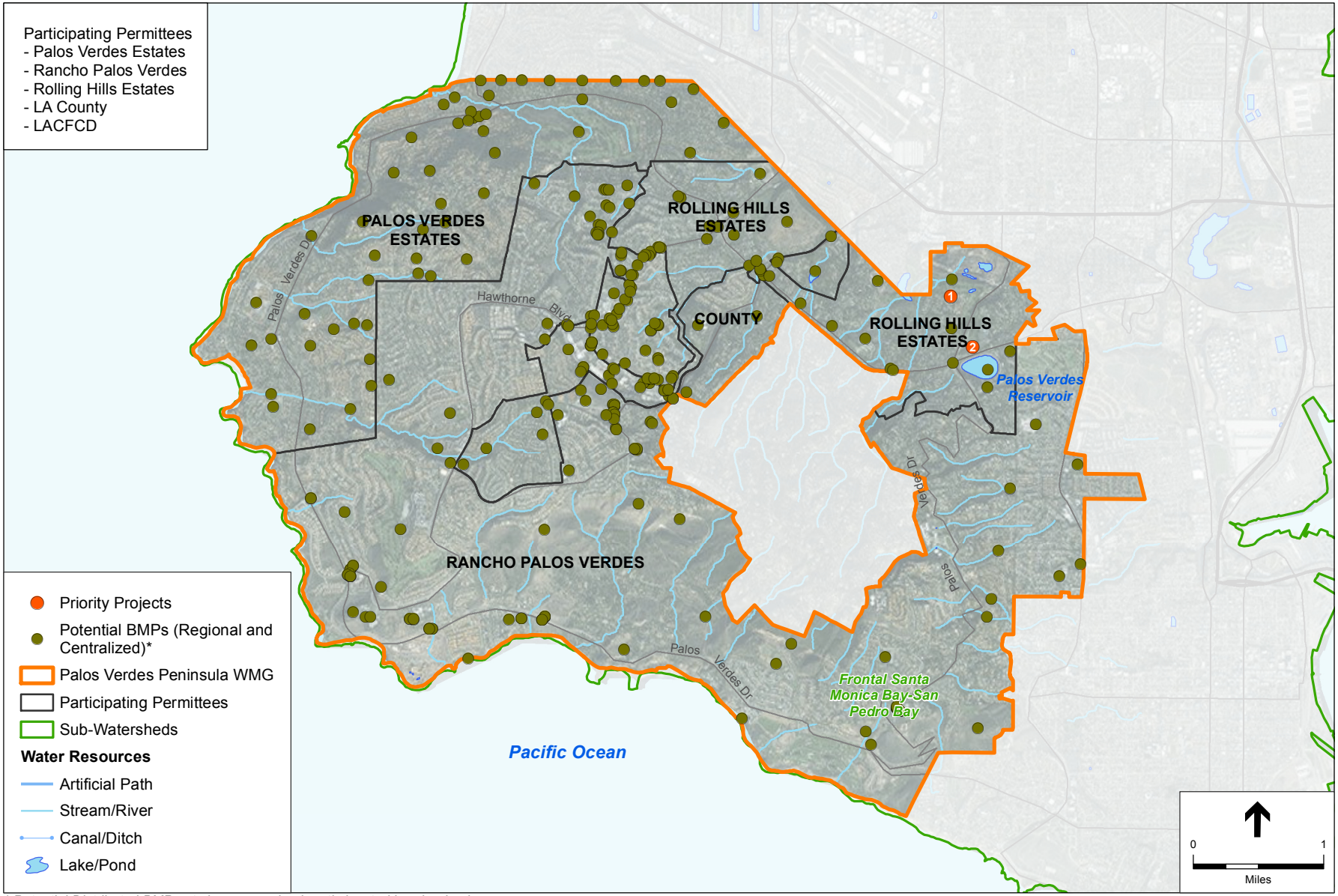
** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: ESRI; National Hydrology Dataset.

LA County PEIR EWMP . 140474

Figure F

North Santa Monica Bay Coastal Watersheds



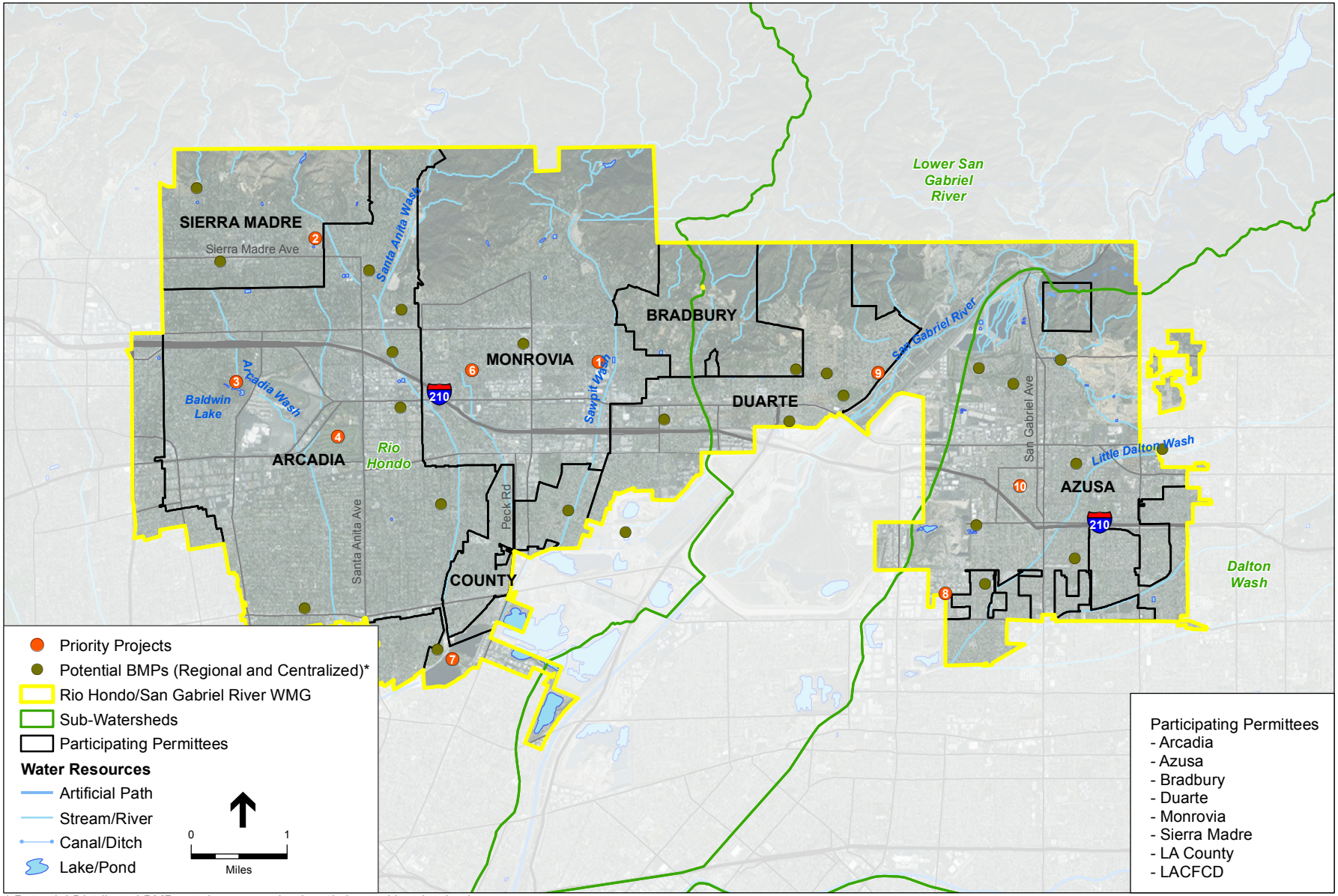
** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: ESRI; National Hydrology Dataset.

LA County PEIR EWMP . 140474

Figure G

Palos Verdes Peninsula
Watershed Management Group



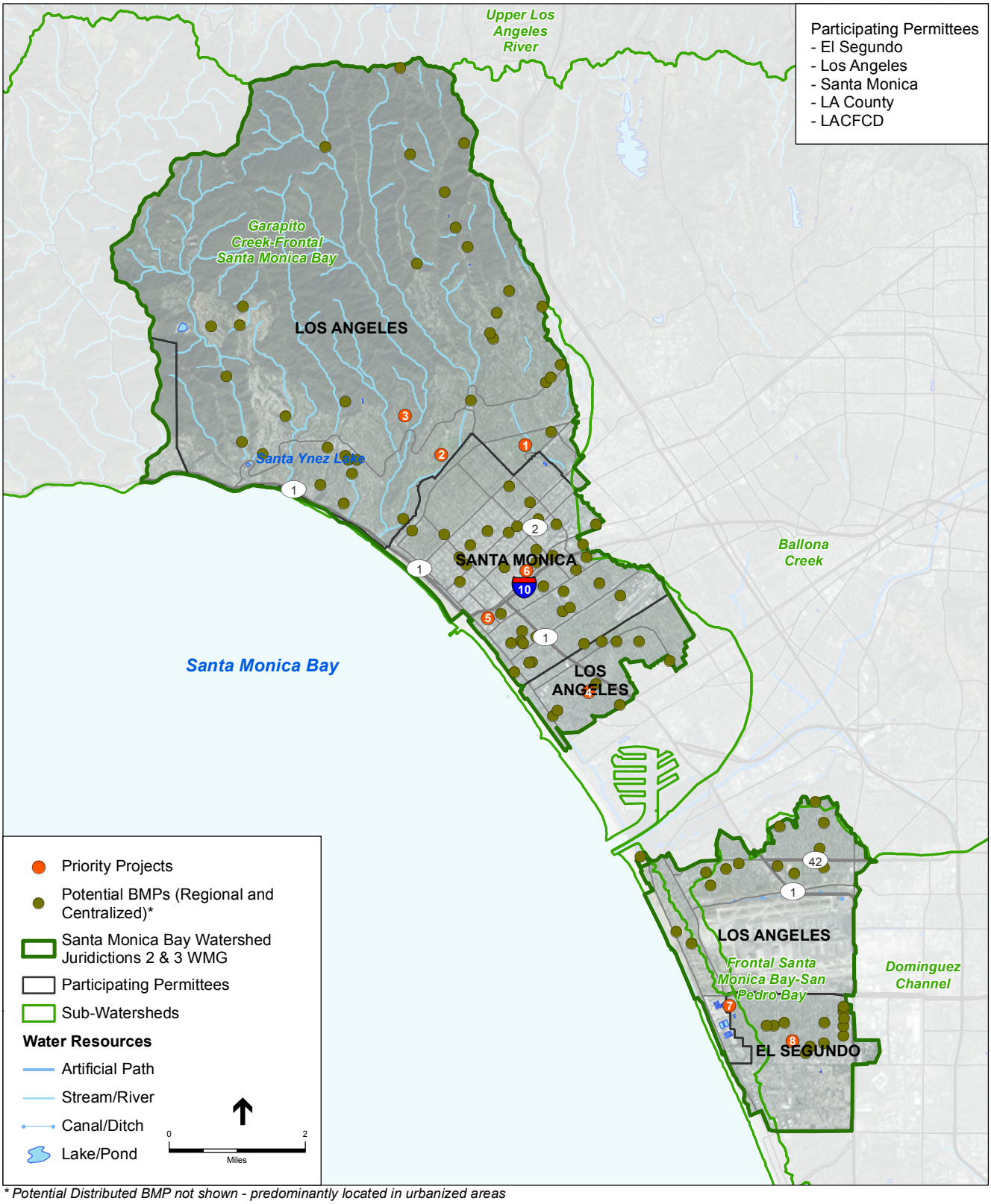
** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: ESRI; National Hydrology Dataset.

LA County PEIR EWMP . 140474

Figure H

Rio Hondo / San Gabriel River
Watershed Management Group



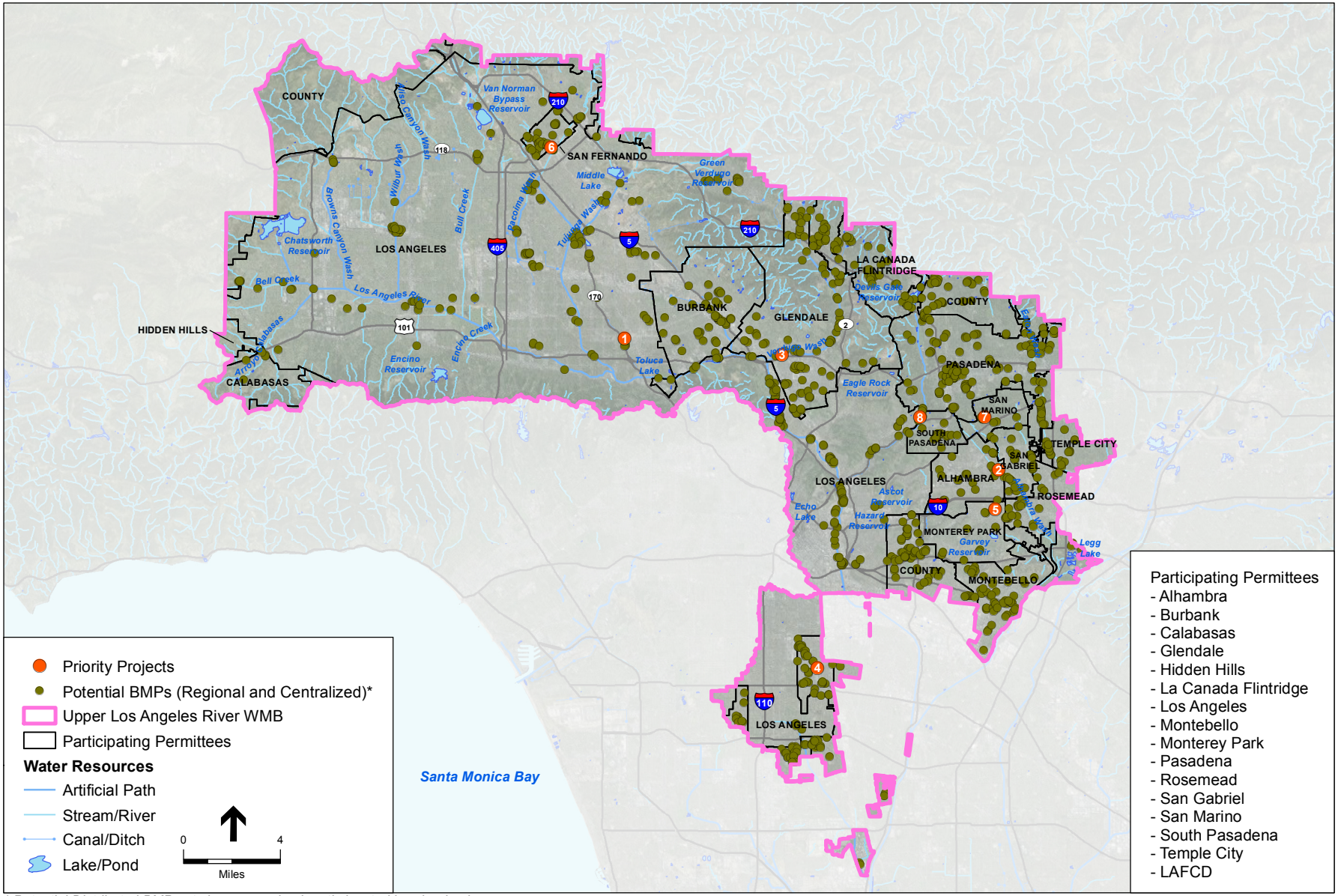
** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: ESRI; National Hydrology Dataset.

LA County PEIR EWMP . 140474

Figure I

Santa Monica Bay Watershed Jurisdictions 2 and 3
Watershed Management Groups



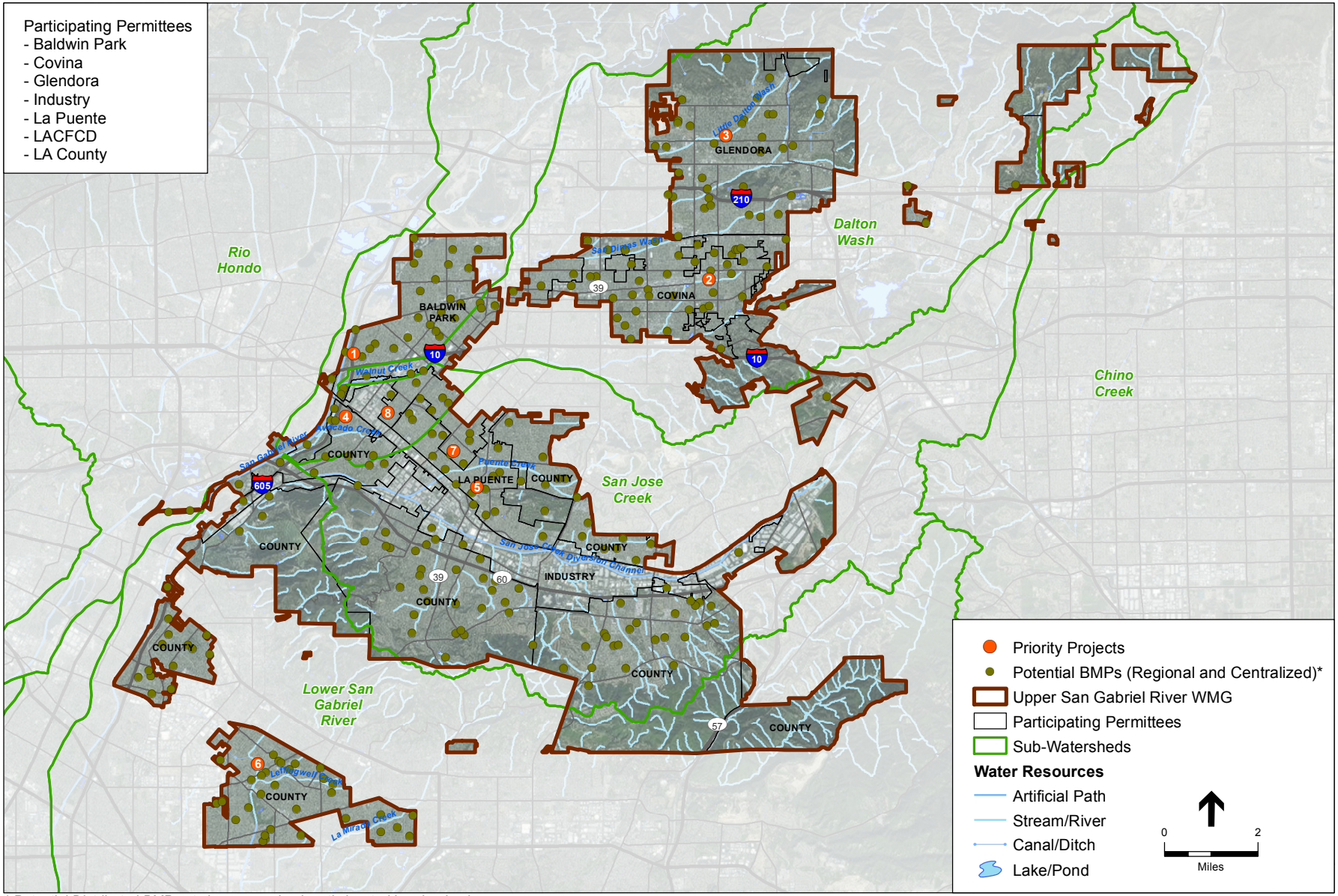
** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: ESRI; National Hydrology Dataset.

LA County PEIR EWMP . 140474

Figure J

Upper Los Angeles River
Watershed Management Group



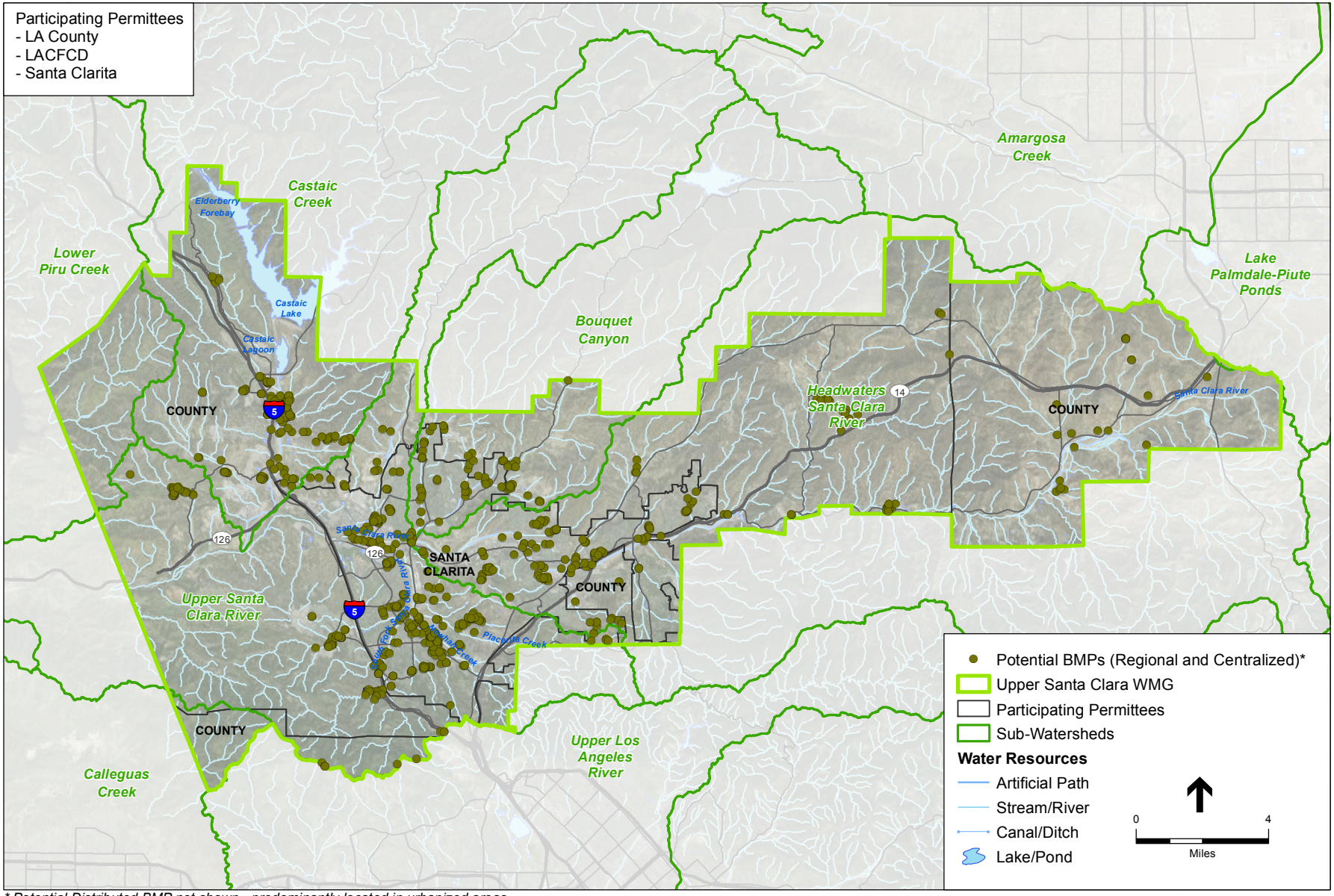
** Potential Distributed BMP not shown - predominantly located in urbanized areas*

SOURCE: ESRI; National Hydrology Dataset.

LA County PEIR EWMP . 140474

Figure K

Upper San Gabriel River
Watershed Management Groups



** Potential Distributed BMP not shown - predominantly located in urbanized areas*
** Prioirty Projects have yet to be determined*

SOURCE: ESRI; National Hydrology Dataset.

LA County PEIR EWMP . 140474

Figure L
Upper Santa Clara River Watershed
Watershed Management Group

Priority Projects			
EWMP Group	**Approximate Project Location**	**Figure Number and Title**	**ID Number**
Ballona Creek			
La Cienega Park – Multi-Use Detention Basin	8400 Gregory way, Bev Hills, CA 90211	Figure A, Ballona Creek Watershed Management Group	1
Culver Blvd Median	Culver Blvd between Sepulveda and Overland	Figure A, Ballona Creek Watershed Management Group	2
Edward Vincent – Subsurface flow wetland with equalization storage		Figure A, Ballona Creek Watershed Management Group	3
Ladera Park	6027 Ladera Park Ave, Los Angeles, CA 90056	Figure A, Ballona Creek Watershed Management Group	4
Plummer Park	7377 Santa Monica Blvd, West Hollywood, CA 90046	Figure A, Ballona Creek Watershed Management Group	5
Lafayette Park	Los Angeles, CA 90005	Figure A, Ballona Creek Watershed Management Group	6
Rancho Park Golf Course	10460 W Pico Blvd, Los Angeles, CA 90064	Figure A, Ballona Creek Watershed Management Group	7
Poinsettta Recreation Center	7341 Willoughby Avenue, Los Angeles, CA 90046	Figure A, Ballona Creek Watershed Management Group	8
Queen Anne Recreation Center	1240 West Blvd, Los Angeles, CA 90019	Figure A, Ballona Creek Watershed Management Group	9
Beach Cities Watershed Management Group			
Not yet determined		Figure B, Beach Cities Watershed Management Group	
Dominguez Channel Watershed Management Area Group			
Darcy Park – Infiltration		Figure C, Dominguez Channel Watershed Management Group	1
El Segundo Project – Infiltration		Figure C, Dominguez Channel Watershed Management Group	2
Ramona Park – Capture and Reuse	4662 West 136th Street Hawthorne, CA 90250	Figure C, Dominguez Channel Watershed Management Group	3
Jim Thorpe – Infiltration		Figure C, Dominguez Channel Watershed Management Group	4
Chester Washington – Infiltration		Figure C, Dominguez Channel Watershed Management Group	5
Helen Keller – Infiltration		Figure C, Dominguez Channel Watershed Management Group	6
Harbor City/Wilmington Drain – Capture and Reuse		Figure C, Dominguez Channel Watershed Management Group	7
Averill Park – Infiltration	1300 South Dodson Avenue San Pedro, CA 90732	Figure C, Dominguez Channel Watershed Management Group	8
Malibu Creek Watershed			
Not yet determined		Figure D, Malibu Creek Watershed Management Group	
Marina del Rey			
Area 1 – Green Streets	Venice Blvd	Figure E, Marina del Rey Watershed Management Group	1

Priority Projects			
EWMP Group	**Approximate Project Location**	**Figure Number and Title**	**ID Number**
Area 2 – Green Streets	Venice Blvd	Figure E, Marina del Rey Watershed Management Group	2
North Santa Monica Bay Coastal Watersheds			
Trancas – Infiltration	33332 Pacific Coast Highway Malibu, CA 90265	Figure F, North Santa Monica Bay Coastal Watersheds	1
Zuma 1, 2, 3 – Infiltration	Encinal Canyon Rd	Figure F, North Santa Monica Bay Coastal Watersheds	2
Malibu Legacy Park Pump Station Improvements – Treatment Plant Pump Upgrades	Cross Creek Rd and PCH	Figure F, North Santa Monica Bay Coastal Watersheds	3
Paradise Cove 1 – Infiltration	Paradise Cove Rd and PCH	Figure F, North Santa Monica Bay Coastal Watersheds	4
J1/4 Topanga –1,3 – Infiltration	East of Topanga Canyon RD	Figure F, North Santa Monica Bay Coastal Watersheds	5
J1/4 Topanga –2 – Infiltration	East of Summit Trail	Figure F, North Santa Monica Bay Coastal Watersheds	6
J1/4 Topanga –4 – Infiltration	North of Topanga School Rd	Figure F, North Santa Monica Bay Coastal Watersheds	7
J1/4 Topanga –5 – Infiltration	East of Topanga Canyon RD	Figure F, North Santa Monica Bay Coastal Watersheds	8
J1/4 Topanga –6 – Infiltration	West of Topanga Canyon Rd	Figure F, North Santa Monica Bay Coastal Watersheds	9
J1/4 Topanga –7 – Infiltration	East of Summit Trail	Figure F, North Santa Monica Bay Coastal Watersheds	10
J1/4 Topanga –8 – Infiltration	East of Valley Drive	Figure F, North Santa Monica Bay Coastal Watersheds	11
J1/4 Topanga –9 – Infiltration	East of Topanga Canyon RD	Figure F, North Santa Monica Bay Coastal Watersheds	12
J1/4 Topanga –10 – Infiltration	Between Topanga Canyon Rd and Fernwood Pacific Drive	Figure F, North Santa Monica Bay Coastal Watersheds	13
Palos Verdes Peninsula EWMP Agencies			
Chandler Quarry Project – Infiltration	Club View Lane	Figure G, Palos Verdes Peninsula Watershed Management Group	1
Casaba Estates (Butcher Ranch) – Bioretention	Palos Verdes Drive	Figure G, Palos Verdes Peninsula Watershed Management Group	2
Rio Hondo/San Gabriel River Water Quality Group			
Recreation Park	Lemon Avenue and Mountain Avenue	Figure H, Rio Hondo/San Gabriel River Watershed Management Group	1
Sierra Vista Park	Sierra Madre Boulevard and Rancho Road	Figure H, Rio Hondo/San Gabriel River Watershed Management Group	2

Priority Projects			
EWMP Group	**Approximate Project Location**	**Figure Number and Title**	**ID Number**
Arboretum of Los Angeles County	Baldwin Avenue and Colorado Street	Figure H, Rio Hondo/San Gabriel River Watershed Management Group	3
Santa Anita Golf Course	Huntington Drive and Santa Anita Avenue	Figure H, Rio Hondo/San Gabriel River Watershed Management Group	4
Royal Oaks Trail (LAR)	Los Angeles River	Figure H, Rio Hondo/San Gabriel River Watershed Management Group	5
L. Garcia Park	Olive Avenue and Mayflower Avenue	Figure H, Rio Hondo/San Gabriel River Watershed Management Group	6
Peck Road Park Lake	Peck Road and Rio Hondo Parkway	Figure H, Rio Hondo/San Gabriel River Watershed Management Group	7
LADWP Easement	From Irwindale to Lake Ellen south of Arrow Hwy	Figure H, Rio Hondo/San Gabriel River Watershed Management Group	8
Encanto Park	Encanto Pkwy, Duarte, CA 91010	Figure H, Rio Hondo/San Gabriel River Watershed Management Group	9
Memorial Park (Azusa)	3rd Street and N Orange Ave	Figure H, Rio Hondo/San Gabriel River Watershed Management Group	10
Royal Oaks Trail (SGR)	San Gabriel River	Figure H, Rio Hondo/San Gabriel River Watershed Management Group	11
Santa Monica Bay Watershed, Jurisdictions 2 & 3			
Brentwood Golf Course	590 South Burlingame Avenue Los Angeles, CA 90049	Figure I, Santa Monica Bay Watershed Jurisdictions 2 and 3 Watershed Management Groups	1
Riviera Country Club	1250 Capri Drive Pacific Palisades, CA 90272	Figure I, Santa Monica Bay Watershed Jurisdictions 2 and 3 Watershed Management Groups	2
Rustic Canyon Recreation Center	Latimer Rd Santa Monica, CA 90402	Figure I, Santa Monica Bay Watershed Jurisdictions 2 and 3 Watershed Management Groups	3
Oakwood Park	767 California St Venice, CA 90291	Figure I, Santa Monica Bay Watershed Jurisdictions 2 and 3 Watershed Management Groups	4
Santa Monica Civic Auditorium and Courthouse	1725 Main St Santa Monica, CA 90401-3274	Figure I, Santa Monica Bay Watershed Jurisdictions 2 and 3 Watershed Management Groups	5
Memorial Park	1401 Olympic Boulevard Santa Monica, CA 90404	Figure I, Santa Monica Bay Watershed Jurisdictions 2 and 3 Watershed Management Groups	6

Priority Projects			
EWMP Group	**Approximate Project Location**	**Figure Number and Title**	**ID Number**
LADWP easement for potential Northwest Infiltration basins	South of Imperial Hwy	Figure I, Santa Monica Bay Watershed Jurisdictions 2 and 3 Watershed Management Groups	7
Recreation Park	401 Sheldon Street El Segundo, CA 90245	Figure I, Santa Monica Bay Watershed Jurisdictions 2 and 3 Watershed Management Groups	8
Upper Los Angeles River Watershed			
North Holly Park Project	11430 Chandler Boulevard North Hollywood, CA 91601	Figure J, Upper Los Angeles River Watershed Management Group	1
Alhambra Golf Course	630 South Almansor Street Alhambra, CA 91801	Figure J, Upper Los Angeles River Watershed Management Group	2
Fremont Park	600 Hahn Avenue Glendale, CA 91203	Figure J, Upper Los Angeles River Watershed Management Group	3
Roosevelt Park	7600 Graham Avenue Los Angeles, CA 90001	Figure J, Upper Los Angeles River Watershed Management Group	4
Sierra Vista Park	311 North Rural Drive Monterey Park, CA 91755	Figure J, Upper Los Angeles River Watershed Management Group	5
208 Park Ave	208 Park Ave, San Fernando, CA 91340	Figure J, Upper Los Angeles River Watershed Management Group	6
Lacy Park – Infiltration/Retention Basin	1485 Virginia Road San Marino, CA 91108	Figure J, Upper Los Angeles River Watershed Management Group	7
Lower Arroyo Park	South Pasadena, CA 91030	Figure J, Upper Los Angeles River Watershed Management Group	8
Upper San Gabriel River			
Barnes Park	3251 Patritti Avenue Baldwin Park, CA 91706	Figure K, Upper San Gabriel River Watershed Management Groups	1
Kahler Russell Park	735 North Glendora Avenue Covina, CA 91724	Figure K, Upper San Gabriel River Watershed Management Groups	2
Finkbiner Park	Glendora, CA 91741	Figure K, Upper San Gabriel River Watershed Management Groups	3
San Angelo Park	245 San Angelo Avenue Bassett, CA 91746	Figure K, Upper San Gabriel River Watershed Management Groups	4
La Puente Park	501 Glendora Avenue La Puente, CA 91744	Figure K, Upper San Gabriel River Watershed Management Groups	5
Adventure Park	10130 South Gunn Avenue Whittier, CA 90605	Figure K, Upper San Gabriel River Watershed Management Groups	6
Allen J Martin Park	14830 East Giordano Street La Puente, CA 91744	Figure K, Upper San Gabriel River Watershed Management Groups	7
Bassett Park	510 Vineland Avenue La Puente, CA 91746	Figure K, Upper San Gabriel River Watershed Management Groups	8
Upper Santa Clara River Watershed			

Priority Projects			
EWMP Group	**Approximate Project Location**	**Figure Number and Title**	**ID Number**
Not yet determined		Figure L, Upper Santa Clara River Watershed Management Group	

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
Dominguez	7448028904	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442020900	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	6079003906	Los Angeles County	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	6079003047	Los Angeles County	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7445018052	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439016900	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439015900	Los Angeles	Senior High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7446021904	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7446021905	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7446021901	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7446021903	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7446021902	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7456022907	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7456022906	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7467003002	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7467003004	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7467003001	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7467003005	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7467003003	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7467003900	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7467003006	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7447010013	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7447010015	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7447010014	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7344007034	Torrance	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7447010016	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7447010017	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7410006035	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7410006900	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7410006034	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7345006901	Torrance	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7349029901	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7462025900	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7452006001	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7452006016	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7452006007	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7375020900	Lomita	Junior Or Intermediate High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7452006004	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7452006017	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7452006002	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7452006009	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7452006011	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7452007012	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7452006015	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7452006006	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7452006003	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7452006005	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7452006008	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7452006010	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7351033031	Los Angeles	Colleges And Universities		2-15, Dominguez Channel Watershed Management Group
Dominguez	7410020018	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7458024918	Los Angeles	Senior High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7553012022	Lomita	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7553012900	Lomita	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7553012023	Lomita	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7452034003	San Pedro	Senior High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7452034031	Los Angeles	Senior High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7452034032	Los Angeles	Senior High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7452034036	Los Angeles County	Senior High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7452034035	Los Angeles	Senior High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7452034028	San Pedro	Senior High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7452034033	Los Angeles	Senior High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7454001001	Los Angeles	Senior High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7454001003	Los Angeles	Senior High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7454001006	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7454001900	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	6139003002	Compton	Senior High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	6139003031	Los Angeles County	Senior High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	6139003029	Compton	Senior High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	6139003028	Compton	Senior High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	6139003030	Compton	Senior High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	6130015901	Los Angeles County	Junior Or Intermediate High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	6130015900	Los Angeles County	Junior Or Intermediate High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	6137004057	Compton	Senior High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	6137004056	Gardena lif	Senior High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4011026022	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4023039902	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4023039903	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4023039904	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4023039905	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4023039907	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4023039030	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4023039906	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4024021026	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4024021023	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4024021025	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4033013900	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4033013906	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4021037900	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4038029014	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4038029004	Lennox	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4038029006	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
Dominguez	4038029007	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4038029005	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4038029020	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4022002900	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4039020900	Los Angeles County	Junior Or Intermediate High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4039021900	Los Angeles County	Junior Or Intermediate High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4039023901	Los Angeles County	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4039022901	Los Angeles County	Junior Or Intermediate High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4039026900	Los Angeles County	Junior Or Intermediate High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4030033903	Inglewood	Senior High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4030033901	Inglewood	Senior High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4030033902	Inglewood	Junior Or Intermediate High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4030033904	Inglewood	Senior High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4034014801	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4034014802	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4057005900	Hawthorne	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4035002900	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4035004032	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4035008902	Los Angeles County	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4020009902	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4020009010	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4020009005	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4020009006	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4020009004	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4036007901	Lennox	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4020016900	Inglewood	Senior High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4036007902	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4020025900	Inglewood	Senior High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4020026900	Inglewood	Senior High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	6057014016	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	6057014017	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4128002902	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4128002901	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4126016015	Inglewood	Colleges And Universities		2-15, Dominguez Channel Watershed Management Group
Dominguez	4126016009	Inglewood	Colleges And Universities		2-15, Dominguez Channel Watershed Management Group
Dominguez	4126016018	Inglewood	Colleges And Universities		2-15, Dominguez Channel Watershed Management Group
Dominguez	4126016011	Inglewood	Colleges And Universities		2-15, Dominguez Channel Watershed Management Group
Dominguez	4126016010	Inglewood	Colleges And Universities		2-15, Dominguez Channel Watershed Management Group
Dominguez	6079002917	Los Angeles County	Colleges And Universities		2-15, Dominguez Channel Watershed Management Group
Dominguez	6079002918	Los Angeles County	Colleges And Universities		2-15, Dominguez Channel Watershed Management Group
Dominguez	4074027906	Los Angeles County	Colleges And Universities		2-15, Dominguez Channel Watershed Management Group
Dominguez	6079002272	Los Angeles County	Colleges And Universities		2-15, Dominguez Channel Watershed Management Group
Dominguez	6079002271	Los Angeles County	Colleges And Universities		2-15, Dominguez Channel Watershed Management Group
Dominguez	4023039029	Inglewood	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4126016025	Inglewood	Colleges And Universities		2-15, Dominguez Channel Watershed Management Group
Dominguez	4128002900	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4128002015	Los Angeles	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4126016016	Inglewood	Colleges And Universities		2-15, Dominguez Channel Watershed Management Group
Dominguez	4126016014	Inglewood	Colleges And Universities		2-15, Dominguez Channel Watershed Management Group
Dominguez	4126016017	Inglewood	Colleges And Universities		2-15, Dominguez Channel Watershed Management Group
Dominguez	4039023900	Los Angeles County	Junior Or Intermediate High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4039009902	Los Angeles County	Junior Or Intermediate High Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	4038029906	Los Angeles County	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7345006900	Torrance	Elementary Schools		2-15, Dominguez Channel Watershed Management Group
Dominguez	7414002904	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7414002903	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428026914	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428026927	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028940	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428026907	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028945	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028947	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028939	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028941	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028963	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028942	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028958	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028960	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029920	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029931	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028925	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
Dominguez	7428028927	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028935	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028969	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029907	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428026926	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028930	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028953	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028970	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029923	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028961	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029902	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028962	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029908	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028924	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028938	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428026908	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428026928	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028965	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029909	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029917	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029934	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028929	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028952	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028934	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029904	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028951	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028971	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029924	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029926	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028931	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029901	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029903	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028968	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028966	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028933	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028954	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028972	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029918	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028928	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028936	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029921	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029932	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028926	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028946	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028959	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029919	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029930	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group

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Dominguez	7428028937	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028967	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028964	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029910	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029935	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029933	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029900	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029922	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428028922	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029943	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029945	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428030901	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029939	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029944	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428030902	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029937	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029946	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428030905	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029938	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029942	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428030900	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029941	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029940	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029947	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428035914	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428035923	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428035922	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428035913	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428035915	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428035916	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029936	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7429013918	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7429013919	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7425023910	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7425032900	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030904	El Segundo	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4145021900	Hawthorne	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4048004916	Hawthorne	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4055008900	Hawthorne	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4041016902	Hawthorne	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4055021900	Hawthorne	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4057031907	Los Angeles County	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4057031908	Los Angeles County	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4057032900	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4043002904	Hawthorne	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	6089021901	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4051020903	Hawthorne	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group

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Dominguez	4051017901	Hawthorne	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4051020900	Hawthorne	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4051020901	Hawthorne	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	6089029903	Los Angeles County	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	6089028905	Los Angeles County	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	6089028908	Los Angeles County	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	6089029901	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	6089029902	Los Angeles County	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4051031900	Hawthorne	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4051030901	Hawthorne	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428035932	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428035931	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428035942	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428035943	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428035930	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7429016901	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029951	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029952	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029948	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029950	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428035928	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428035939	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428035941	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428035929	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428035940	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428035945	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029953	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428035934	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7429013923	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7429016904	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7429013922	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428035933	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428035944	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428029949	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030901	El Segundo	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030902	El Segundo	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428035926	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7429013920	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428035938	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7429013921	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428035937	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428035925	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428035936	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030900	El Segundo	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428035927	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428035924	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428035935	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group

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Dominguez	6121018900	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	6121018902	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4074027908	Los Angeles County	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030903	El Segundo	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	6121015900	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	6121015901	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4145020904	Hawthorne	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4145030900	Hawthorne	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	6121018904	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	6119025900	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4048004903	Hawthorne	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7440031910	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7440030911	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7440031911	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7440030919	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7440030910	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7440031905	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7440030917	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7440030920	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7440030918	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7440034907	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7440040906	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7440034906	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7440030921	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442001907	Palos Verdes Est	Open Space Public, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442001910	Los Angeles	Open Space Public, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442001911	Los Angeles	Open Space Public, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442001919	Los Angeles	Open Space Public, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442001915	Los Angeles	Open Space Public, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442001914	Los Angeles	Open Space Public, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412024902	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442001913	Los Angeles	Open Space Public, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412026912	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4074027907	Los Angeles County	Open Space Public, Developed Regional Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448033914	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448033910	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448033917	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448033921	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448033901	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448034914	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448034921	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448033923	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448034915	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448033908	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448034901	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448035901	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448035913	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448033911	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448033915	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448034906	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448034909	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group

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Dominguez	7448035918	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448034900	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448035900	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
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Dominguez	7448035921	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448033912	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448034908	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448034910	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448033900	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448033909	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448034911	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448035929	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448033906	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448034917	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448035924	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448033907	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448034913	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448034922	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448033919	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448034902	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448034912	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448034923	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448035930	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448033916	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448033918	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448034905	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448035915	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448034926	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448034920	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448035931	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448033903	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448033905	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448034916	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448034918	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448035925	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448034925	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448034927	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448034919	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448035908	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448035926	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448035935	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448036905	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448036906	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448036907	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448036908	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448036900	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448036922	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group

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Dominguez	7448036911	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448036916	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448036903	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448036904	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448036921	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448036926	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448036923	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448036919	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448036915	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448036924	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7446001900	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7454022900	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417001901	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417001904	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417001906	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417001902	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442023901	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417001903	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7446001903	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417001908	Wilmington	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417001911	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417001910	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417001912	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417001909	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417001914	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417001915	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417001913	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417001905	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417001907	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033901	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033902	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417008900	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417009903	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033900	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417009901	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033905	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417008901	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417009900	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417009902	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033904	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417009904	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417008906	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417009916	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417009907	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417009910	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417009917	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417009915	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group

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Dominguez	7417009906	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417009908	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417009912	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417009913	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417009914	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417009909	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417009911	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417009918	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033903	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417009905	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7456011900	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7446013900	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7446015900	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7446014900	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417018901	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7409020900	Los Angeles County	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417018917	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417019914	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417019911	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417019918	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417019909	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417019920	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417018908	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417019923	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417019908	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417019921	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417019922	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417018919	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417019916	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417018915	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417018909	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417018910	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417019907	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417019925	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417018911	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417019924	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417019910	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417019912	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417018903	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417018900	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417018918	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417019913	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417018916	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417019915	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417018906	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417018913	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417018904	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group

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Dominguez	7417019927	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417019917	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417019919	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417019928	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417018907	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417018912	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417018905	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417018914	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417019906	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559034900	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417018902	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7446019901	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559035901	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417020900	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417021900	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7447003901	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455010903	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455010902	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412010903	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412011900	Harbor City	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412012901	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412012900	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412012902	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412012903	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412014900	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412015900	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7467010900	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7467011900	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7560023900	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439027906	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439027904	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439027905	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439027902	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439027903	Lomita	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7447029900	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7467031900	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7467030901	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7467032900	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7467030902	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021906	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021904	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021924	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021914	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021931	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021932	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021916	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021907	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group

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Dominguez	7413021908	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021912	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021902	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021922	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021925	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021915	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021917	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021926	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021911	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021929	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021919	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021921	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021930	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021928	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021905	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021910	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021903	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021918	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021909	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021923	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021913	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021920	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021927	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455025900	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448006900	Los Angeles	Open Space Public, Other Open Space And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448007900	Los Angeles	Open Space Public, Other Open Space And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448004900	Los Angeles	Open Space Public, Other Open Space And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021934	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021935	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021936	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021933	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7372008902	Lomita	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413023900	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7372008905	Lomita	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413024901	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413024900	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413024906	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413024904	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413024902	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413024903	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413024905	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413024916	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413024915	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413024913	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413024914	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413024917	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413024909	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group

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Dominguez	7413024920	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413024908	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413024919	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413024911	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413024918	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413024910	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413024921	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413024922	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413024912	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7418035905	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7418035904	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7469018903	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7418036901	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413024907	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7418035906	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7418036905	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7418036900	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7418036907	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7418035907	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7418036902	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7418036906	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7469017900	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350016900	Los Angeles County	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7469030901	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7469030900	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7440002915	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7440005909	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7560028900	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7561025902	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7561025900	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7562008901	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	6132018900	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4021015901	Inglewood	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4010023900	Inglewood	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4034005912	Inglewood	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4034005907	Inglewood	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4034005905	Inglewood	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4018021902	Inglewood	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4032002913	Inglewood	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4032001900	Inglewood	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4032001908	Inglewood	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4032001901	Inglewood	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4032003915	Inglewood	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4032001905	Inglewood	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4032001904	Inglewood	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4032001902	Inglewood	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	6057010903	Los Angeles	Open Space Public, Developed Regional Parks And Recreation		2-15, Dominguez Channel Watershed Management Group

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Dominguez	4129037913	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4129037916	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4129037910	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4129037902	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4129037912	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4129037911	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4129037915	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4129037906	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4129037907	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4129037909	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4129037914	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4129037908	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4123018927	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	6079002903	Los Angeles County	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7440012902	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7440020910	Los Angeles	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4034005908	Inglewood	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4032001907	Inglewood	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4034005900	Inglewood	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4034005906	Inglewood	Open Space Public, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4123018926	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4123018928	Los Angeles	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4018024905	Inglewood	Open Space Public, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7428013016	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7423016009	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7423017001	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7423016011	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7423016010	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7423017002	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7423016018	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7423016015	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7423017023	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7423023005	Wilmington	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7423023006	Los Angeles	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138012809	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138015803	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7423028044	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138012810	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7423028045	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7423028046	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7425011025	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7425023804	Los Angeles	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7425031008	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7425031002	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7425031005	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7425031001	Wilmington	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7425031004	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7425031007	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7425031006	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7425031003	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149011228	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149011223	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149011225	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149011224	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149011229	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149011227	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149011221	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149011222	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149011226	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149011231	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030058	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030059	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030062	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030009	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030010	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030060	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149011236	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030014	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149013076	Hawthorne	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030011	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030023	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030061	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group

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Dominguez	4138030063	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149011234	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030012	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030064	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030066	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149011235	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149013069	Hawthorne	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149011233	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018011	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018012	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018032	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018025	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018003	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030085	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018016	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018030	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030073	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030076	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030094	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018015	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030072	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018013	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018031	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030074	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030075	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030093	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018004	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018027	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030068	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149011230	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018006	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018023	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030081	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018007	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018024	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030082	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018001	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018026	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018002	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030070	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018008	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018021	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018009	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018018	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018029	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030077	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030079	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018014	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018019	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030080	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030087	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018017	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018028	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030078	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018010	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030071	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030069	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030083	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018020	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030086	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018005	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149018022	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030084	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4149011232	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030065	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030067	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4143007017	Hawthorne	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4143007022	Hawthorne	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4143007018	Hawthorne	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4143007021	Hawthorne	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4143007019	Hawthorne	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4143007016	Hawthorne	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7422008011	Los Angeles	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4048004055	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4048004054	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4048004056	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4048004050	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4048004049	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4055006017	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4055008013	Hawthorne	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4055021012	Hawthorne	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4141016076	Hawthorne	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4141016088	Hawthorne	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4141016074	Hawthorne	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4141015064	Hawthorne	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4141016087	Hawthorne	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4141016077	Hawthorne	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4141016086	Hawthorne	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4141016075	Hawthorne	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4141016079	Hawthorne	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4141016078	Hawthorne	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4141016080	Hawthorne	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4057031034	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4057031035	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4057031037	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group

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Dominguez	4051020028	Hawthorne	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4051017007	Hawthorne	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	6089029037	Los Angeles	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4071018018	Gardena	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4071018019	Gardena	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4051031003	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4051030010	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4051030011	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4051031004	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4051032800	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4051031007	Hawthorne	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	6129001035	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	6079002029	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7425011803	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	6079002028	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7425011805	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138012004	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138015007	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138015008	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030028	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030035	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030047	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030044	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030025	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030057	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030043	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030045	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030034	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030054	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030056	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030046	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030026	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030092	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030042	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030055	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4143007015	Hawthorne	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4057032801	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030049	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030051	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030039	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030040	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030037	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030050	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030052	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030038	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030041	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030048	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4143007020	Hawthorne	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030024	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030015	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030036	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030053	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030022	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4140016163	Los Angeles	Open Space Private, Other Open Space And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138030013	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	6079002064	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4055006019	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4048004043	Hawthorne	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4048004053	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4057031039	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4048004058	Hawthorne	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4048004051	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4048004052	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028121	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028117	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028129	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028146	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028118	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028143	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028157	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028131	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028127	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028136	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028122	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028124	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028123	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028125	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028120	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028145	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028116	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028130	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028134	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028128	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028135	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028139	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028156	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028119	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028126	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028140	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028142	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028155	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028132	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028149	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028138	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028133	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
Dominguez	7442028147	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028144	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028153	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028154	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028148	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028150	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028137	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028152	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028158	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442001023	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442001033	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028151	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028141	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442001009	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442001024	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442001010	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442001007	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442001022	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442004018	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442005008	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442005023	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442005016	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442005017	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442005001	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442004017	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442005009	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442004016	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442005022	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412022009	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412022008	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412026021	Los Angeles	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4055006018	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442009018	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442009019	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033003	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033008	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033005	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033030	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033004	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033013	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033019	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033021	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033034	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033026	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033035	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033010	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033015	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033017	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033012	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033031	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033025	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033006	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033036	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033033	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033002	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033009	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033027	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033014	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033022	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033007	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033018	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033032	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033024	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033020	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033011	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033028	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033029	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033016	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033023	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033040	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033049	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033051	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033046	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033047	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033048	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033052	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033039	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033043	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033050	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033038	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033042	San Pedro	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033044	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033045	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033053	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033055	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033041	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033066	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030143	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030150	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033062	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033063	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030146	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030147	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033058	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030142	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group

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Dominguez	7442033064	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030144	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030145	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033070	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033061	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033057	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033068	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030152	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033069	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030153	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033060	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033065	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033067	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030149	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030151	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030168	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033054	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030172	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030179	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030196	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030197	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030148	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030177	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030184	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
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Dominguez	7442030160	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030192	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030165	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030190	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030201	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030154	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030186	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030203	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030163	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030180	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030194	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030198	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033059	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030166	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030173	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030202	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030162	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030181	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030195	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030175	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030182	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030193	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030200	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030161	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030164	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030178	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030183	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030169	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030171	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030188	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030157	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030170	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030187	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030189	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030159	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030191	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030174	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030176	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030158	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030167	San Pedro	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030199	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033037	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033075	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033072	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033084	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033091	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033095	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033101	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030185	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033090	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033092	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033099	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033074	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033076	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033056	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033080	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033081	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033094	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033103	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033079	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033077	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033078	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033096	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033097	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033093	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033100	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033102	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033087	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033089	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033082	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
Dominguez	7442033073	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033088	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033085	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033104	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033083	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033098	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442030155	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448036021	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033071	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033120	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033122	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033115	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033119	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033109	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033127	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033116	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033114	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033126	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033107	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033118	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033132	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033113	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033130	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033131	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033121	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033124	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033112	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033117	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033108	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033110	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033125	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033123	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033129	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033106	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033086	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033111	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033128	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7445012048	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442033105	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7460004015	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7449014023	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417003043	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417003045	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7446006014	San Pedro	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7446005001	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417003046	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417003044	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7449014020	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7449014028	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7449014033	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7449014027	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7449014029	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7449014037	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417003042	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7449014030	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7449014032	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028004	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7449014035	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7449014034	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7449014026	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028005	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7449014031	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7449014025	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7449014036	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028003	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7449014038	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417003048	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417003049	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033050	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033043	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033044	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033048	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033047	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033042	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033045	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033046	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033053	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033064	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033055	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033081	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028010	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033049	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028007	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033058	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033078	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028017	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033059	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033077	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028014	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033061	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033075	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028015	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033067	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033051	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033066	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
Dominguez	7413033060	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033076	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028016	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7449014024	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033073	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028009	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028011	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033070	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028018	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028020	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028012	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028019	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033062	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028028	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033063	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028027	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033056	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028034	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028036	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033057	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033071	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033079	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028037	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028025	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028038	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028042	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033069	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028008	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028040	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033080	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028022	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028041	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028021	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028046	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028045	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028030	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028048	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028031	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028049	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033074	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028035	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033068	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028013	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028050	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028026	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028044	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028043	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028052	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033054	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033065	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028024	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028039	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028032	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028033	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028047	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028029	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028054	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028053	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028051	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417003047	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028056	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7456011800	Los Angeles	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413033052	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028006	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7456012800	Los Angeles	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7456012024	Los Angeles	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028023	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028055	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7446014021	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7446015001	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7446017003	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7446015007	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7446017004	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7446017006	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028058	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028064	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028060	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028071	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028066	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028070	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7445018053	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028067	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028068	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028059	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028061	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028063	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028062	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028069	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028065	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028073	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028076	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028079	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028084	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028078	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028081	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
Dominguez	7442028077	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028085	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028083	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028088	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028087	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028080	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028074	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028086	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028082	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028075	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7446018004	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7446018005	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7446017005	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7446017009	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028057	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028072	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7446017008	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028090	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028092	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028094	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028097	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028105	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028095	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028104	San Pedro	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028096	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028091	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028101	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028093	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028102	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028100	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028099	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7447001031	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028098	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028103	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7447001032	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7446019021	Los Angeles	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7447001030	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7447001029	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028107	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028112	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028111	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028114	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028109	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028113	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028115	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028089	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028106	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028110	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7417021023	Los Angeles	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7447003001	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7442028108	Los Angeles	Open Space Private, Vant Area		2-15, Dominguez Channel Watershed Management Group
Dominguez	7447003024	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455010001	Los Angeles	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455010006	Los Angeles	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7447009001	Los Angeles	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7447009003	Los Angeles	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7374014038	Lomita	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7374014036	Lomita	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7374014032	Lomita	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412011006	Los Angeles	Open Space Private, Developed Regional Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7374014044	Lomita	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7374014042	Lomita	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412009007	Wilmington	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7374014045	Lomita	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7374014043	Lomita	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7374014049	Lomita	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7374014037	Lomita	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7374014039	Lomita	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412014007	Los Angeles	Open Space Private, Developed Regional Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412014026	Los Angeles	Open Space Private, Developed Regional Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412014012	Los Angeles	Open Space Private, Developed Regional Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412014019	Los Angeles	Open Space Private, Developed Regional Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412014022	Los Angeles	Open Space Private, Developed Regional Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412014014	Los Angeles	Open Space Private, Developed Regional Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412014015	Los Angeles	Open Space Private, Developed Regional Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412014017	Los Angeles	Open Space Private, Developed Regional Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412016003	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412014023	Los Angeles	Open Space Private, Developed Regional Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412014008	Los Angeles	Open Space Private, Developed Regional Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412014009	Los Angeles	Open Space Private, Developed Regional Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412016006	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412014005	Los Angeles	Open Space Private, Developed Regional Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412014021	Los Angeles	Open Space Private, Developed Regional Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412014018	Los Angeles	Open Space Private, Developed Regional Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412014020	Los Angeles	Open Space Private, Developed Regional Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412016005	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412014024	Los Angeles	Open Space Private, Developed Regional Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412014011	Los Angeles	Open Space Private, Developed Regional Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412016009	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412014016	Los Angeles	Open Space Private, Developed Regional Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412016002	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412016004	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412014004	Los Angeles	Open Space Private, Developed Regional Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412016001	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412014010	Los Angeles	Open Space Private, Developed Regional Parks And Recreation		2-15, Dominguez Channel Watershed Management Group

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Dominguez	7412015003	Los Angeles	Open Space Private, Developed Regional Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412014025	Los Angeles	Open Space Private, Developed Regional Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412016010	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412016011	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412016012	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412014013	Los Angeles	Open Space Private, Developed Regional Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7374014041	Lomita	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7412012001	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7467010010	Los Angeles	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7467010023	Los Angeles	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7467011019	Los Angeles	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7467011007	Los Angeles	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7467011023	Los Angeles	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7467010011	Los Angeles	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7467010003	Los Angeles	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7467011020	Los Angeles	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7467011022	Los Angeles	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7467011024	Los Angeles	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7467011008	Los Angeles	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026166	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026168	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026154	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026173	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026153	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026170	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026163	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026157	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026155	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026172	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026165	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026151	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026176	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026160	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026162	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026175	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026177	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026167	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026178	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026159	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026149	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026174	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026161	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026164	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026158	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026169	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026156	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026171	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026150	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026152	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026180	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7447020030	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7447018018	Los Angeles	Open Space Private, Other Open Space And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7447020029	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7447020032	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7447020028	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7447018017	Los Angeles	Open Space Private, Other Open Space And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7447020009	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026183	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026185	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026184	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026186	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
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Dominguez	7439026182	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021042	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021043	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021039	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021046	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021060	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021061	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021038	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021040	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021045	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021047	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021051	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021066	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021041	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021058	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021056	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
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Dominguez	7455021053	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021057	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021064	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021062	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021044	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021037	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021055	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021059	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021063	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021065	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021067	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021052	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021050	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021054	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7439026181	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group

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Dominguez	7455021071	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021082	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021070	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021077	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021076	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021073	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021080	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021072	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455021079	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
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Dominguez	7455021136	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448004012	Los Angeles	Open Space Private, Other Open Space And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413021037	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448004011	Los Angeles	Open Space Private, Other Open Space And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448005008	Los Angeles	Open Space Private, Other Open Space And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448007003	Los Angeles	Open Space Private, Other Open Space And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448007005	Los Angeles	Open Space Private, Other Open Space And Recreation		2-15, Dominguez Channel Watershed Management Group

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
Dominguez	7448005002	San Pedro	Open Space Private, Other Open Space And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448007002	Los Angeles	Open Space Private, Other Open Space And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448005007	Los Angeles	Open Space Private, Other Open Space And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448007001	Los Angeles	Open Space Private, Other Open Space And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448004017	Los Angeles	Open Space Private, Other Open Space And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448007004	Los Angeles	Open Space Private, Other Open Space And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448004015	Los Angeles	Open Space Private, Other Open Space And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448005005	Los Angeles	Open Space Private, Other Open Space And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448005006	Los Angeles	Open Space Private, Other Open Space And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448007006	Los Angeles	Open Space Private, Other Open Space And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448005003	Los Angeles	Open Space Private, Other Open Space And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448005004	Los Angeles	Open Space Private, Other Open Space And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7448004013	Los Angeles	Open Space Private, Other Open Space And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350007020	Torrance	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350007018	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350007017	Torrance	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350007019	Torrance	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350007016	Torrance	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350007045	Torrance	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
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Dominguez	7413024066	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413024062	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413024089	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7413024085	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
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Dominguez	7413024067	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
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Dominguez	7350015043	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350015053	Torrance	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350016015	Torrance	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
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Dominguez	7350016005	Torrance	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
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Dominguez	7350016026	Torrance	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350016041	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350016037	Torrance	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7347001002	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350016016	Torrance	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350016029	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
Dominguez	7350016033	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350015055	Torrance	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350016012	Torrance	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350016034	Torrance	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350015045	Torrance	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350015049	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350016031	Torrance	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350015058	Torrance	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350016003	Torrance	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350016028	Torrance	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350016035	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350016030	Torrance	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350015050	Torrance	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350015059	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7347001033	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7347001035	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350015054	Torrance	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7347001034	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
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Dominguez	7350017038	Torrance	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350017040	Torrance	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
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Dominguez	7350017039	Torrance	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350017036	Torrance	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350018002	Torrance	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350018003	Torrance	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7350017035	Torrance	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
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Dominguez	7350018006	Torrance	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7351002033	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7409009003	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7409009002	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7409009020	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7409009001	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7409009005	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7409009006	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7409009004	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7452024011	San Pedro	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7452025018	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7452032001	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7452032016	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7452032008	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7347018054	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7452033012	San Pedro	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7452033031	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7560026035	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7560026038	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7560028001	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559022005	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559022013	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559022008	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559022001	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559022017	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559022019	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559022011	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559023005	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559022014	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559022004	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559022006	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559022012	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559023003	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559023010	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559023002	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559023009	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559022016	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559023014	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559023006	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559023007	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559023013	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559022021	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559023011	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559022009	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559022020	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559022007	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559023004	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559022015	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559023001	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559023008	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559028036	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559022018	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7559023012	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7562012008	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7562012011	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7562012013	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7562012015	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7562012009	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7562012007	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7562012012	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7562012014	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7562012010	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7562012001	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
Dominguez	7562012006	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7562012003	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7562012004	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7562012005	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7562026008	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	6132001003	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	6132007001	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021007	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021005	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021006	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021008	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021015	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021016	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021012	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021023	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021010	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021022	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021013	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021024	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021027	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021011	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021014	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021021	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021017	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021019	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021018	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021020	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021009	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
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Dominguez	4025021048	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021057	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021047	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021054	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021049	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021050	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021052	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021053	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021051	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021074	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021070	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
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Dominguez	4025021065	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021072	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021064	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021061	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021095	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021062	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021073	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
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Dominguez	4025021063	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021060	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021068	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021101	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021119	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021120	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022005	Inglewood	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022001	Inglewood	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022013	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022017	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022007	Inglewood	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022014	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022008	Inglewood	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022015	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022011	Inglewood	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022012	Inglewood	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022010	Inglewood	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022016	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022019	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022003	Inglewood	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022020	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022009	Inglewood	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022018	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022006	Inglewood	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022025	Inglewood	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022034	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022022	Inglewood	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022033	Inglewood	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022029	Inglewood	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022030	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022023	Inglewood	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025021058	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022024	Inglewood	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022031	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022035	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022028	Inglewood	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022032	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022026	Inglewood	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022027	Inglewood	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022002	Inglewood	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022004	Inglewood	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022037	Inglewood	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022042	Inglewood	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023002	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
Dominguez	4025023009	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023010	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023019	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022021	Inglewood	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023020	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023003	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023021	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022046	Inglewood	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023015	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023005	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023007	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023022	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022040	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022045	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
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Dominguez	4025023004	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023008	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023023	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022043	Inglewood	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023014	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022044	Inglewood	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023013	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023017	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023012	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022039	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023011	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023018	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023001	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023006	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023030	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023031	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023058	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023075	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023034	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023063	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023070	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023029	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023032	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024001	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023027	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023062	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
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Dominguez	4025023068	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023079	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024005	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023033	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023076	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024006	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
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Dominguez	4025023080	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023056	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024008	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023025	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023028	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023071	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023026	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023035	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023060	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024007	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022036	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023059	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024016	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024025	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024019	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024010	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024027	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024012	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024023	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024020	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024022	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024013	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024015	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024014	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025022038	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024024	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024026	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024017	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024021	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024018	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025023024	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024031	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024040	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024035	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024036	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024030	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024037	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024034	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024041	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024011	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024032	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024039	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024061	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024038	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024063	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024070	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
Dominguez	4025024072	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024095	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024097	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024029	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024065	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024045	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024042	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025012	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025015	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024069	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024062	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025014	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024071	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024096	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024075	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024094	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025011	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025013	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024067	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025037	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024033	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024066	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024102	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025036	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024073	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025003	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025039	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024068	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024100	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025001	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025038	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025046	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024099	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4024009004	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024064	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025048	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025009	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025041	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024074	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025010	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025044	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025002	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025045	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025047	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025007	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025040	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025042	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4024009003	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025024028	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025065	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025067	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4024009030	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025066	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025063	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025069	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025070	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025071	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4025025043	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4030001011	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4030001013	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4030001012	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4030002057	Inglewood	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4039014028	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4039014026	Lennox	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4039014030	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4018024038	Inglewood	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	7318010041	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7318009126	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7318011071	Dominguez	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7318011073	Dominguez	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7318011809	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7318019035	rson	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7318019010	Rancho Dominguez	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7318019044	Rancho Dominguel	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7318010027	Rancho Dominguez	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7318020007	Dominguez	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7318019046	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7318020009	Dominguez	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7318020008	rson	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7318019043	Compton	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7318020011	rson	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7318020014	Dominguez	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7318020013	Dominguez	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7318023046	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7318023044	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	6079002081	Los Angeles County	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	7440012805	Los Angeles	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138015044	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138015049	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138015039	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138015040	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138015046	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138015054	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138015041	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138015038	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
Dominguez	4138015053	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138015047	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138015048	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138015051	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138015050	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138015055	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138015052	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4018024007	Inglewood	Open Space Private, Developed Lol Parks And Recreation		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138015059	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138015043	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138015800	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138015058	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138015060	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138015037	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138015006	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138015033	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138015005	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138015012	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138015014	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138015042	El Segundo	Open Space Private, Vant Undifferentiated		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138003900	El Segundo	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138002905	El Segundo	Open Space Private, Base Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	4035026906	Hawthorne	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	4035026904	Hawthorne	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	4057032908	Hawthorne	Open Space Private, Other Public Facilities		2-15, Dominguez Channel Watershed Management Group
Dominguez	4138002904	El Segundo	Open Space Private, Base Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	4035026905	Hawthorne	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	4049016900	Hawthorne	Open Space Private, Other Public Facilities		2-15, Dominguez Channel Watershed Management Group
Dominguez	4057032906	Hawthorne	Open Space Private, Other Public Facilities		2-15, Dominguez Channel Watershed Management Group
Dominguez	4035026907	Hawthorne	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	4035026908	Hawthorne	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	4041015901	Hawthorne	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	4049009904	Hawthorne	Open Space Private, Other Public Facilities		2-15, Dominguez Channel Watershed Management Group
Dominguez	7451015901	Los Angeles	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	7451020902	Los Angeles	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	7451020900	Los Angeles	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	7451020901	Los Angeles	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455025909	Los Angeles	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455025910	Los Angeles	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455025901	Los Angeles	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455025911	Los Angeles	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455025907	Los Angeles	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455025908	Los Angeles	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455025906	Los Angeles	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455025905	Los Angeles	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455025904	Los Angeles	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455026939	Los Angeles	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	7455026900	Los Angeles	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	7374001902	Inglewood	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	7374001904	Lomita	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	7374001908	Lomita	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	6132014902	Los Angeles County	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	6132016903	Los Angeles	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	6130003900	Los Angeles	Open Space Private, Other Public Facilities		2-15, Dominguez Channel Watershed Management Group
Dominguez	6079005901	Los Angeles	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	6079004901	Los Angeles	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	6079004903	Los Angeles County	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	6079006904	Los Angeles	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	6079004902	Los Angeles	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	4124002916	Los Angeles	Open Space Private, Other Public Facilities		2-15, Dominguez Channel Watershed Management Group
Dominguez	7440022913	Los Angeles	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group
Dominguez	7440027917	Los Angeles	Open Space Private, Government Offices		2-15, Dominguez Channel Watershed Management Group

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
				Beach Cities Ewmp	
Beach Cities	Na	Hermosa Beach		1315 Valley Dr., Hermosa Beach	2-7, Beach Cities Watershed Management Group
Beach Cities	Na	Hermosa Beach		425 Valley Dr., Hermosa Beach	2-7, Beach Cities Watershed Management Group
Beach Cities	Na	Manhattan Beach		1998 N Valley Dr., Manhattan Beach	2-7, Beach Cities Watershed Management Group
Beach Cities	Na	Manhattan Beach		Manhattan Beach	2-7, Beach Cities Watershed Management Group
Beach Cities	Na	Manhattan Beach		1701 N Herrin Ave., Manhattan Beach	2-7, Beach Cities Watershed Management Group
Beach Cities	Na	Redondo Beach		801 mino Real, Redondo Beach	2-7, Beach Cities Watershed Management Group
Beach Cities	Na	Redondo Beach		2723 Alvord Ln., Redondo Beach	2-7, Beach Cities Watershed Management Group
Beach Cities	Na	Redondo Beach		190 Flagler Ln., Redondo Beach	2-7, Beach Cities Watershed Management Group
Beach Cities	Na	Redondo Beach		1 Sea Hawk Way, Redondo Beach	2-7, Beach Cities Watershed Management Group
Beach Cities	Na	Redondo Beach		309 Esplanade, Redondo Beach	2-7, Beach Cities Watershed Management Group
Beach Cities	Na	Torrance		3141 Torrance Blvd., Torrance	2-7, Beach Cities Watershed Management Group
Beach Cities	Na	Herondo And The Strand		Herondo And The Strand	2-7, Beach Cities Watershed Management Group
Beach Cities	Na	Hermosa Beach		425 Valley Drive, Hermosa Beach	2-7, Beach Cities Watershed Management Group
Beach Cities	Na	Hermosa Beach		526 Gould Ave., Hermosa Beach	2-7, Beach Cities Watershed Management Group
Beach Cities	Na	The Strand		28Th St And The Strand	2-7, Beach Cities Watershed Management Group
Beach Cities	Na	The Strand		Strand And 44Th 32Nd St (6 Outfalls)	2-7, Beach Cities Watershed Management Group
Beach Cities	Na	The Strand		Strand And 2Nd 18Th St (9 Outfalls)	2-7, Beach Cities Watershed Management Group
Beach Cities	Na	The Strand		Strand And 1St 35Th St (2 Outfalls)	2-7, Beach Cities Watershed Management Group
Beach Cities	Na	Redondo Beach		801 mino Real, Redondo Beach	2-7, Beach Cities Watershed Management Group
Beach Cities	Na	Redondo Beach		1801 Rockefeller Lane, Redondo Beach	2-7, Beach Cities Watershed Management Group
Beach Cities	Na	Torrance		1119 Barbara St., Torrance	2-7, Beach Cities Watershed Management Group
Beach Cities	Na	Manhattan Beach		Manhattan Beach	2-7, Beach Cities Watershed Management Group
Beach Cities	Na	Manhattan Beach		1701 N Herrin Ave., Manhattan Beach	2-7, Beach Cities Watershed Management Group
Beach Cities	Na	Manhattan Beach		1701 N Herrin Ave., Manhattan Beach	2-7, Beach Cities Watershed Management Group
Beach Cities	Na	Hermosa Beach		Hermosa Ave From Herondo To 2Nd St, Hermos	2-7, Beach Cities Watershed Management Group

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
Palos Verdes Peninsula Ewmp					
Palos Verdes	Na		Open Space And Recreation	Peppertree Trail	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	Ocean Terrace Drive	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	Forrestal Drive	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	1805 West 9Th Street	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	Kings Harbor Drive	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	Palos Verdes Drive East	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	30940 Hawthorne Boulevard	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	7040 Vфa Del Mar	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	32200 Valor Pl	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	Indian Peak Road	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	29301 Hawthorne Boulevard	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	717 Vфa La Cuesta	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	Malaga nyon Trail	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	nada Trail	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	Palos Verdes Drive East	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	4903 Browndeer Ln	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	1 Peppertree Dr	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	Palos Verdes Drive East	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	1700 Westmont Drive	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	4100 Maritime Rd	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	Nike Trail	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	2 Park Place	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	28013 Seashell Way	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	6500 Seacove Drive	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Edutional Use	30840 Hawthorne Blvd	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Edutional Use	30800 Palos Verdes Drive East	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Edutional Use	28014 S Montereina Dr	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Edutional Use	28915 Northbay Rd	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Edutional Use	3050030698 Rue De La Pierre	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Edutional Use	2760827660 Flaming Arrow Dr	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Edutional Use	6956 Purple Ridge Dr	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Edutional Use	32623358 Crest Rd	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Edutional Use	1946 W Crestwood St	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Edutional Use	54005598 Diversey Dr	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Government Institution	30940 Hawthorne Boulevard	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Golf Course/Country Club	7000 Los Verdes Drive	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Commercial Use	642 Silver Spur Rd	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Commercial Use	5739 Crestridge Rd	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Commercial Use	5837 Crest Rd	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Commercial Use	5741 Crestridge Rd	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	970 Paseo La Cresta	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	Del Sol Fire Rd	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	1304 Vфa Zumaya	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	Batting ge Trail	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	2100 Rosita Pl	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	1729 Vфa Arriba	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	1525 Vфa Coronel	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	Valmonte South Trai	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	15011599 Vфa Martinez	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	1536 Vфa Leon	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	113199 Vфa pay	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	1822 Paseo Del Sol	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	15001598 Lower Paseo La Cresta	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	1274 Vфa Coronel	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	Vфa Nivel	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	556558 Paseo Del Mar	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	13011399 Vфa Fernandez	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	4025 Vфa Solano	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	Pio Pico Hillside Trail	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	796804 Vфa Del Monte	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	1516 Paseo La Cresta	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	1408 Chelsea Rd	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	La Selva Path	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	Torrance Utility Rd	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	17011799 Lower Paseo La Cresta	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	Colusa Path	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	Torrance Utility Rd	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	Telephone Pole Trail	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	1016 Vфa Ventana	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	2008 Vфa Fernandez	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	Torrance Utility Rd	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	Torrance Utility Rd	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	Torrance Utility Rd	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	2216 Vфa Anapa	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	300 Palos Verdes Dr W	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	Upper La Costa Fire Station Trail	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	14011499 Plaza Francisco	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	Torrance Utility Rd	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	63 Malaga Cove Plaza	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	14131499 Vфa Andres	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	278288 Palos Verdes Dr W	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	Vфa Corta	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	22142216 Thorley Pl	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Edutional Institution	1800 Palos Verdes Dr W	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Edutional Institution	301359 Vфa Almar	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Edutional Institution	520 Paseo Lunado	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Edutional Institution	12011299 Vфa Nogales	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Edutional Institution	3801 Vфa La Selva	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Edutional Institution	600 Cloyden Rd	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Edutional Institution	Vфa mpesina	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Other Commercial	361399 Tejon Pl	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Golf Course/Country Club	30003298 Paseo Del mpo	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Commercial Use	135 Coronel Plaza	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Commercial Use	23402398 Vфa Alones	2-9, Palos Verdes Peninsula Watershed Management Group

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
Palos Verdes	Na		Commercial Use	14401444 Vфa Coronel	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	26201 Crenshaw Blvd	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	2300 Bridle Trail	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	31 Peartree Ln	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	27575 Indian Peak Rd	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	Highridge Trail	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	501 Indian Peak Rd	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	2604026474 Hawthorne Blvd	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	4700 Palos Verdes Dr N	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	4400 Palos Verdes Dr N	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	Highridge Rd	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	Crenshaw Boulevard	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Edutional Use	Phillip'S nyon Trail	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Edutional Use	27118 Silver Spur Road	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Edutional Use	Summer Morning'S Spur Trail	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Edutional Use	26944 Rolling Hills Rd	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Edutional Use	Bridle Trail	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Government Institution	4045 Palos Verdes Dr N	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Golf Course/	27000 Palos Verdes Drive East	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Commercial Use	627 Deep Valley Dr	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Open Space And Recreation	26300 Crenshaw Boulevard	2-9, Palos Verdes Peninsula Watershed Management Group
Palos Verdes	Na		Edutional Use	26800 South Ademy Drive	2-9, Palos Verdes Peninsula Watershed Management Group

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
				Rio Hondo/San Gabriel River Ewmp	
Rio Hondo			Northside Park/School	12Th Street And Orange Avenue	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			Zates Park	1St Street And Virginia Avenue	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			Bonita Park	2Nd Avenue And Bonita Street	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			Eisenhower Park	2Nd Avenue And Haven Avenue	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			Memorial Park (Azusa)	3Rd Street And N Orange Ave	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			Slauson Park	5Th Street And Pasadena Ave	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			Arboretum Of Lac	Baldwin Avenue And Colorado Street	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			mino Grove Park/School	mino Grove Avenue And 6Th Avenue	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			Gordon Sports Park/School	Central Avenue And Mt. Olive Drive	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			Citrus Community College	Citrus Avenue And Foothill Boulevard	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			Utility Easement	From Irwindale To Lake Ellen South Of Arrow Hw	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			Gladstone Park	Gladstone Street And Pasadena Avenue	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			Duarte Park	Huntington Drive And Highland Avenue	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			Santa Anita Golf Course	Huntington Drive And Santa Anita Avenue	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			Valleydale Park	Lark Ellen Avenue And Gladstone Street	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			Rancho Duarte Golf Course	Las Lomas Road And Hacienda Drive	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			Longley Way Elementary	Las Tunas Drive And Longley Way	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			Recreation Park	Lemon Avenue And Mountain Avenue	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			Memorial Park	Mariposa Avenue And Sierra Madre Boulevard	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			Pamela Park	Maydee Street And Goodall Avenue	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			Spreading Grounds	Meridian Street And Tifal Avenue	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			Bailey nyon Park	Oak Crest Drive And rter Avenue	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			L Garcia Park	Olive Avenue And Mayflower Avenue	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			Library Park	Palm Avenue And Myrtle Avenue	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			Peck Road Park	Peck Road And Rio Hondo Parkway	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			Royal Oaks Park	Royal Oaks Drive And Vineyard Ave	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			Highland Oaks Elementary	Santa Anita Avenue And Virginia Drive	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			Pioneer Park	Sierra Madre Avenue And Dalton Avenue	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			Azusa Greens Country Club	Sierra Madre Avenue And Todd Avenue	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			Sierra Vista Park/School	Sierra Madre Boulevard And Rancho Road	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			Foothills Middle School	Symore Avenue And Oakhaven Road	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			Ardia Golf Course	Wildflower Road And Mapletree Avenue	2-13, Rio Hondo/San Gabriel River Watershed Management Group
Rio Hondo			Royal Oaks Elementary	Royal Oaks Drive And Mt. Olive Drive	2-13, Rio Hondo/San Gabriel River Watershed Management Group

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
				Upper Los Angeles River Ewmp	
Ular	6086031918	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	6086031910	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	6148015903	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6148016901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6149021930	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6149022926	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6149028914	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6056010901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	8590009903	Temple City			2-14, Upper Los Angeles River Watershed Management Group
Ular	5311001900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5319026903	South Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5324003900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5324015900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5377019900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5409012902	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5409013914	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5410006900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5447001901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5447017902	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5715005900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5754031901	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5754028904	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	2360011900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5666016901	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5702006902	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5814002901	La nada Flintridge			2-14, Upper Los Angeles River Watershed Management Group
Ular	5814001900	La nada Flintridge			2-14, Upper Los Angeles River Watershed Management Group
Ular	2026004900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2148029901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2210018900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2210018905	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2350011908	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2356033900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2627020902	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2031008904	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2210018903	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2210018904	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2215001912	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2248008901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2248009901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2513008900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2513008901	San Fernando			2-14, Upper Los Angeles River Watershed Management Group
Ular	2516030905	San Fernando			2-14, Upper Los Angeles River Watershed Management Group
Ular	2516031902	San Fernando			2-14, Upper Los Angeles River Watershed Management Group
Ular	2519001903	San Fernando			2-14, Upper Los Angeles River Watershed Management Group
Ular	2519011900	San Fernando			2-14, Upper Los Angeles River Watershed Management Group
Ular	2520010900	San Fernando			2-14, Upper Los Angeles River Watershed Management Group
Ular	2521016900	San Fernando			2-14, Upper Los Angeles River Watershed Management Group
Ular	2612015900	San Fernando			2-14, Upper Los Angeles River Watershed Management Group
Ular	2612015905	San Fernando			2-14, Upper Los Angeles River Watershed Management Group
Ular	2613009903	San Fernando			2-14, Upper Los Angeles River Watershed Management Group
Ular	2521031901	San Fernando			2-14, Upper Los Angeles River Watershed Management Group
Ular	2521031902	San Fernando			2-14, Upper Los Angeles River Watershed Management Group
Ular	2521034904	San Fernando			2-14, Upper Los Angeles River Watershed Management Group
Ular	2522001901	San Fernando			2-14, Upper Los Angeles River Watershed Management Group
Ular	2522011900	San Fernando			2-14, Upper Los Angeles River Watershed Management Group
Ular	2522004904	San Fernando			2-14, Upper Los Angeles River Watershed Management Group
Ular	2522006900	San Fernando			2-14, Upper Los Angeles River Watershed Management Group
Ular	2522001902	San Fernando			2-14, Upper Los Angeles River Watershed Management Group
Ular	2613006900	San Fernando			2-14, Upper Los Angeles River Watershed Management Group
Ular	2613003900	San Fernando			2-14, Upper Los Angeles River Watershed Management Group
Ular	2706001905	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2762038900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2644001900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2644001901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2653006910	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2653007900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2653006900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2653007904	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2653006913	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2784003905	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2784003901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2784003907	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2634016901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2634031900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5813017903	La nada Flintridge			2-14, Upper Los Angeles River Watershed Management Group
Ular	5813017900	La nada Flintridge			2-14, Upper Los Angeles River Watershed Management Group
Ular	5813018900	La nada Flintridge			2-14, Upper Los Angeles River Watershed Management Group
Ular	5813021900	La nada Flintridge			2-14, Upper Los Angeles River Watershed Management Group
Ular	5814004900	La nada Flintridge			2-14, Upper Los Angeles River Watershed Management Group
Ular	5815001900	La nada Flintridge			2-14, Upper Los Angeles River Watershed Management Group
Ular	2210018902	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2210018909	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2210018901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2210018910	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2210018907	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2308012900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2024023900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2024023901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5821020901	La nada Flintridge			2-14, Upper Los Angeles River Watershed Management Group
Ular	2331024900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2331030900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2341024904	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2181015900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
Ular	2124017901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2124022900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5711004903	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5711004900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5711004904	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5727010900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5727014902	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5705013900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5705023901	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	2074024900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5713029901	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5713008904	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5720004900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5722002903	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5722010915	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5722002901	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5722002902	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5722028904	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5723004908	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5723004910	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5722036926	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5723018906	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5723020902	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5723018903	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5723021901	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5723018910	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5723018900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5723004906	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5723021905	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5645028900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5752022902	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5746005900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5746025907	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5662004900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5666011900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	2364008900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5641003900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5642015903	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5642016900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5642017901	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5637007900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5734021900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5734028900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5734028901	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5734028904	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5734028902	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5734020903	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5734021901	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5734021902	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5734020900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5748024900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5722027912	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5722027910	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5722030904	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5722027911	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5723017913	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5330014900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5330014901	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5735033903	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5715013900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5715014900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5716017900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5716019902	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5640036902	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5640007900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5640031914	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5640031912	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5640031908	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5640042902	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5640031916	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5640042907	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5640031918	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5641019902	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5641019901	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5377003900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5493007900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5492034902	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5492034901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5493006903	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5315002901	South Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5319027907	South Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5320006901	South Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5320005902	South Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5320024901	South Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5321003900	South Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5328020901	San Marino			2-14, Upper Los Angeles River Watershed Management Group
Ular	5328020903	San Marino			2-14, Upper Los Angeles River Watershed Management Group
Ular	5335029900	San Gabriel			2-14, Upper Los Angeles River Watershed Management Group
Ular	5376006908	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5376010900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5376011900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5716021904	South Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	8587024901	Temple City			2-14, Upper Los Angeles River Watershed Management Group
Ular	8587024900	Temple City			2-14, Upper Los Angeles River Watershed Management Group
Ular	5334025900	San Marino			2-14, Upper Los Angeles River Watershed Management Group

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Ular	5333035903	San Gabriel			2-14, Upper Los Angeles River Watershed Management Group
Ular	5366026900	San Gabriel			2-14, Upper Los Angeles River Watershed Management Group
Ular	5435036900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5381009900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5381036901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5381036903	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5381036902	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5435039900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5381021900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5381019900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5385010901	Temple City			2-14, Upper Los Angeles River Watershed Management Group
Ular	8588026903	Temple City			2-14, Upper Los Angeles River Watershed Management Group
Ular	8588026902	Temple City			2-14, Upper Los Angeles River Watershed Management Group
Ular	8588026901	Temple City			2-14, Upper Los Angeles River Watershed Management Group
Ular	8590010900	Temple City			2-14, Upper Los Angeles River Watershed Management Group
Ular	5313012901	South Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5314026938	South Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5319030904	South Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5319030907	South Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5319030905	South Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5319029901	South Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5387007903	Temple City			2-14, Upper Los Angeles River Watershed Management Group
Ular	5442029900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5311002901	South Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5467008901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5336017900	Alhambra			2-14, Upper Los Angeles River Watershed Management Group
Ular	5346005901	Alhambra			2-14, Upper Los Angeles River Watershed Management Group
Ular	5346005902	Alhambra			2-14, Upper Los Angeles River Watershed Management Group
Ular	5387034901	San Gabriel			2-14, Upper Los Angeles River Watershed Management Group
Ular	5387034900	San Gabriel			2-14, Upper Los Angeles River Watershed Management Group
Ular	5445006901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5361002903	San Gabriel			2-14, Upper Los Angeles River Watershed Management Group
Ular	5362012900	San Gabriel			2-14, Upper Los Angeles River Watershed Management Group
Ular	5362018900	San Gabriel			2-14, Upper Los Angeles River Watershed Management Group
Ular	5367027900	San Gabriel			2-14, Upper Los Angeles River Watershed Management Group
Ular	5373020901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5373022901	San Gabriel			2-14, Upper Los Angeles River Watershed Management Group
Ular	5373026900	San Gabriel			2-14, Upper Los Angeles River Watershed Management Group
Ular	8590030901	Temple City			2-14, Upper Los Angeles River Watershed Management Group
Ular	8590031910	Temple City			2-14, Upper Los Angeles River Watershed Management Group
Ular	5388024902	Temple City			2-14, Upper Los Angeles River Watershed Management Group
Ular	5388024905	Temple City			2-14, Upper Los Angeles River Watershed Management Group
Ular	5388024903	Temple City			2-14, Upper Los Angeles River Watershed Management Group
Ular	8592018903	Rosemead			2-14, Upper Los Angeles River Watershed Management Group
Ular	5343001906	Alhambra			2-14, Upper Los Angeles River Watershed Management Group
Ular	5343001907	Alhambra			2-14, Upper Los Angeles River Watershed Management Group
Ular	5343026901	Alhambra			2-14, Upper Los Angeles River Watershed Management Group
Ular	5343026902	Alhambra			2-14, Upper Los Angeles River Watershed Management Group
Ular	5356009900	Alhambra			2-14, Upper Los Angeles River Watershed Management Group
Ular	5291008900	Alhambra			2-14, Upper Los Angeles River Watershed Management Group
Ular	5223028907	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5357005900	Alhambra			2-14, Upper Los Angeles River Watershed Management Group
Ular	5372019900	Rosemead			2-14, Upper Los Angeles River Watershed Management Group
Ular	5360010901	San Gabriel			2-14, Upper Los Angeles River Watershed Management Group
Ular	5360010902	San Gabriel			2-14, Upper Los Angeles River Watershed Management Group
Ular	5360018900	San Gabriel			2-14, Upper Los Angeles River Watershed Management Group
Ular	5211021900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5370006901	San Gabriel			2-14, Upper Los Angeles River Watershed Management Group
Ular	5370005900	San Gabriel			2-14, Upper Los Angeles River Watershed Management Group
Ular	5447005900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5447017901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5360032900	San Gabriel			2-14, Upper Los Angeles River Watershed Management Group
Ular	5360029902	San Gabriel			2-14, Upper Los Angeles River Watershed Management Group
Ular	5447027901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5447020901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5447027906	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5447027908	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5447026900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5447027907	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5288002900	Rosemead			2-14, Upper Los Angeles River Watershed Management Group
Ular	5409012903	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5409023934	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5224034900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5283020908	Rosemead			2-14, Upper Los Angeles River Watershed Management Group
Ular	5283032903	Rosemead			2-14, Upper Los Angeles River Watershed Management Group
Ular	8117006900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6021016900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6021016901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6024001902	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6025032917	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6047015901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6028005901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6028030904	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6028031900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6028031903	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6028031901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6044008905	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6044008904	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6026030902	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6026026900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6026024913	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6026025902	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6044021906	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6045019905	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6045019902	La County			2-14, Upper Los Angeles River Watershed Management Group

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Ular	6060011904	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6060009909	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6060013900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6076003901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6076001902	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6076003904	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6070006900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	6149014907	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6149014903	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6149014904	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6149014909	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6149014900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6149028900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6149028902	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6150014900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6152002901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6086022904	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6086031914	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6086031909	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6086031911	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6086031915	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6086031907	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6086031917	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6086031908	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6086037901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6086037903	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6086037907	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6086037902	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6086037900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6134033900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6180017922	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6180015903	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	7306019901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	7306019902	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	2124018906	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2770013901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2516028902	San Fernando			2-14, Upper Los Angeles River Watershed Management Group
Ular	2516030908	San Fernando			2-14, Upper Los Angeles River Watershed Management Group
Ular	2516030903	San Fernando			2-14, Upper Los Angeles River Watershed Management Group
Ular	2516030909	San Fernando			2-14, Upper Los Angeles River Watershed Management Group
Ular	2519026901	San Fernando			2-14, Upper Los Angeles River Watershed Management Group
Ular	2613008900	San Fernando			2-14, Upper Los Angeles River Watershed Management Group
Ular	6021008901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5223030924	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5332025900	San Marino			2-14, Upper Los Angeles River Watershed Management Group
Ular	5347029907	Alhambra			2-14, Upper Los Angeles River Watershed Management Group
Ular	5347031903	San Gabriel			2-14, Upper Los Angeles River Watershed Management Group
Ular	5347028905	Alhambra			2-14, Upper Los Angeles River Watershed Management Group
Ular	5360002900	San Gabriel			2-14, Upper Los Angeles River Watershed Management Group
Ular	5360012901	San Gabriel			2-14, Upper Los Angeles River Watershed Management Group
Ular	5361002902	San Gabriel			2-14, Upper Los Angeles River Watershed Management Group
Ular	5361002904	San Gabriel			2-14, Upper Los Angeles River Watershed Management Group
Ular	5364024903	San Gabriel			2-14, Upper Los Angeles River Watershed Management Group
Ular	5370016902	San Gabriel			2-14, Upper Los Angeles River Watershed Management Group
Ular	5372012900	Rosemead			2-14, Upper Los Angeles River Watershed Management Group
Ular	5376012901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5387032924	Temple City			2-14, Upper Los Angeles River Watershed Management Group
Ular	5387030917	Temple City			2-14, Upper Los Angeles River Watershed Management Group
Ular	5389001903	Rosemead			2-14, Upper Los Angeles River Watershed Management Group
Ular	5389001904	Rosemead			2-14, Upper Los Angeles River Watershed Management Group
Ular	5389001901	Rosemead			2-14, Upper Los Angeles River Watershed Management Group
Ular	5389001902	Rosemead			2-14, Upper Los Angeles River Watershed Management Group
Ular	5390001900	Rosemead			2-14, Upper Los Angeles River Watershed Management Group
Ular	5390002900	Rosemead			2-14, Upper Los Angeles River Watershed Management Group
Ular	5435038902	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5435039903	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5442031901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5442031902	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5457001901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5457001902	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5637006900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5675013901	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5675028900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5696008928	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5189010922	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5189010924	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5225019916	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5233027921	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5233026931	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5234008900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5234015904	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5234015905	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5237023907	Monterey Park			2-14, Upper Los Angeles River Watershed Management Group
Ular	5238009900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5238008905	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5287013901	Rosemead			2-14, Upper Los Angeles River Watershed Management Group
Ular	5287014900	Rosemead			2-14, Upper Los Angeles River Watershed Management Group
Ular	5287022900	Rosemead			2-14, Upper Los Angeles River Watershed Management Group
Ular	5171025901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5171025902	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2460032902	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	2538015900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5607010900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5607012901	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5615014902	Glendale			2-14, Upper Los Angeles River Watershed Management Group

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Ular	5622015900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5628016900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5628027900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5635006900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5635020900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5636006900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5636016901	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5644013902	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5644013914	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5646025900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5650004907	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5650004905	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5650036901	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	2681011902	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5293013901	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6343022901	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6344023902	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6344014900	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6346027901	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6348010900	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6349019905	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6351020900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6353001900	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	2485027900	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	5434039901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5593018903	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2353001904	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
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Ular	2449035904	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	2451009902	Burbank			2-14, Upper Los Angeles River Watershed Management Group
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Ular	2557027909	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2559017900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5601017903	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5602009901	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5602010901	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5602011901	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5603003901	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5603011900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5606006900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5606016900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5606017900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5801010901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5801016904	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5803023900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5866017902	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5870013901	La nada Flintridge			2-14, Upper Los Angeles River Watershed Management Group
Ular	5749018900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5750003902	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
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Ular	5830013931	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5830013925	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5830013924	La County			2-14, Upper Los Angeles River Watershed Management Group
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Ular	5842020902	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5843008901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5849025901	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5849025900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5857035901	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	2451005901	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	2451006904	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	5319027906	South Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5493038900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5467011901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5723026900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5723026902	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5593030903	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5593012909	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5593018907	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2459008900	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	2459007901	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	2459007900	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	2459008901	Burbank			2-14, Upper Los Angeles River Watershed Management Group

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
Ular	2459006900	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	2469001902	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	5830013908	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5830013910	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	2525018901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2525016901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2525019900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2525023902	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2526023918	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	2681010910	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2706001907	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2706001906	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2555032900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2557023901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5601026901	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5606012900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5866005900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5602002900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5603014900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5806019900	La nada Flintridge			2-14, Upper Los Angeles River Watershed Management Group
Ular	5864004900	La nada Flintridge			2-14, Upper Los Angeles River Watershed Management Group
Ular	5602009900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5610024901	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5611015901	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5803011900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5803011901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5803027900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5803026900	La County			2-14, Upper Los Angeles River Watershed Management Group
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Ular	5804015911	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5804015912	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5804013901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5804014901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5803008900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5803020901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5866026900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5866030901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5866031900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5864003900	La nada Flintridge			2-14, Upper Los Angeles River Watershed Management Group
Ular	5816014913	La nada Flintridge			2-14, Upper Los Angeles River Watershed Management Group
Ular	2634004913	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5812007900	La nada Flintridge			2-14, Upper Los Angeles River Watershed Management Group
Ular	5812013903	La nada Flintridge			2-14, Upper Los Angeles River Watershed Management Group
Ular	5812013902	La nada Flintridge			2-14, Upper Los Angeles River Watershed Management Group
Ular	5864020900	La nada Flintridge			2-14, Upper Los Angeles River Watershed Management Group
Ular	5611010900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5810012902	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5870012901	La nada Flintridge			2-14, Upper Los Angeles River Watershed Management Group
Ular	5870023902	La nada Flintridge			2-14, Upper Los Angeles River Watershed Management Group
Ular	5864026902	La nada Flintridge			2-14, Upper Los Angeles River Watershed Management Group
Ular	2314001900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2314005900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2314005903	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2409004901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
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Ular	5613007900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5613008900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
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Ular	5615001900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5807024900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5810023900	La nada Flintridge			2-14, Upper Los Angeles River Watershed Management Group
Ular	5801006902	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5816005900	La nada Flintridge			2-14, Upper Los Angeles River Watershed Management Group
Ular	5617015900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	2462008900	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	2463009900	Burbank			2-14, Upper Los Angeles River Watershed Management Group
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Ular	5819006902	La nada Flintridge			2-14, Upper Los Angeles River Watershed Management Group
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Ular	5842020901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5829005903	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5829005902	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5616003900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5832017900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5835012908	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5835012901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5835012904	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5835012900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5835012906	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5835012907	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5842021900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5842021901	La County			2-14, Upper Los Angeles River Watershed Management Group
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Ular	5829006902	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5829006901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5829006903	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5829006900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	2451010904	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	2451010905	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	5843015900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5828021903	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5840010900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5840009901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5841032900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	2415015900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
Ular	2414005902	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2415013900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5730030903	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5730030900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5730029903	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5848030900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	2451006903	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	2453023901	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	2453023902	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	2453023900	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	2449035902	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	2449035907	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	2451007904	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	2462017905	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	2462017904	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	5825020908	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5825020900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5825020902	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5827013904	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	2476013900	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	2480009900	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	2483006901	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	2480009901	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	5627003903	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5627006900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5627003902	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5751018907	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5751020904	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5751019900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5623010900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5623020900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
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Ular	5728018910	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5728021910	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5825007900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5825007901	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	2446007900	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	2445027903	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	2447019900	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	2447012904	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	5650004900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5653019900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	2068005900	labasas			2-14, Upper Los Angeles River Watershed Management Group
Ular	2068005901	labasas			2-14, Upper Los Angeles River Watershed Management Group
Ular	2068002900	labasas			2-14, Upper Los Angeles River Watershed Management Group
Ular	2069007906	labasas			2-14, Upper Los Angeles River Watershed Management Group
Ular	5758001901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5759002900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5759006913	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5860032900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5636007901	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5737014901	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5749020901	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5853015901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5853015900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5759031900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5740020900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5633021900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5635006902	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5650036900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5726015900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5722010913	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5593001902	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5593001906	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	2443009900	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	5757002901	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5752005900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5636012905	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5644013935	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5752002901	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
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Ular	2443025906	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	2443025900	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	5696010901	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5696008929	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5643020906	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5643019900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5721026900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	2485029900	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	5593018900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2069006903	labasas			2-14, Upper Los Angeles River Watershed Management Group
Ular	5324003902	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5324003901	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	2424043901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	2424043900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5676024900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5676024901	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5676024904	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5679001900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5640035901	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5594016900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5594016903	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group

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Ular	5594018901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5594018900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5594016901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5594016902	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5593030904	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5593002904	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5593029900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5376001913	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5376001912	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5493037900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5716021903	South Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5467012900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5467012901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5291027902	Alhambra			2-14, Upper Los Angeles River Watershed Management Group
Ular	5286017902	Rosemead			2-14, Upper Los Angeles River Watershed Management Group
Ular	5287020902	Rosemead			2-14, Upper Los Angeles River Watershed Management Group
Ular	5287020904	Rosemead			2-14, Upper Los Angeles River Watershed Management Group
Ular	5287020900	Rosemead			2-14, Upper Los Angeles River Watershed Management Group
Ular	5287020903	Rosemead			2-14, Upper Los Angeles River Watershed Management Group
Ular	5287021900	Rosemead			2-14, Upper Los Angeles River Watershed Management Group
Ular	5255008902	Monterey Park			2-14, Upper Los Angeles River Watershed Management Group
Ular	5255008900	Monterey Park			2-14, Upper Los Angeles River Watershed Management Group
Ular	5258002908	Monterey Park			2-14, Upper Los Angeles River Watershed Management Group
Ular	5260006901	Monterey Park			2-14, Upper Los Angeles River Watershed Management Group
Ular	5284038900	Rosemead			2-14, Upper Los Angeles River Watershed Management Group
Ular	5284034900	Rosemead			2-14, Upper Los Angeles River Watershed Management Group
Ular	5285007923	Rosemead			2-14, Upper Los Angeles River Watershed Management Group
Ular	5285008905	Rosemead			2-14, Upper Los Angeles River Watershed Management Group
Ular	5285008904	Rosemead			2-14, Upper Los Angeles River Watershed Management Group
Ular	5285008909	Rosemead			2-14, Upper Los Angeles River Watershed Management Group
Ular	5285006908	Rosemead			2-14, Upper Los Angeles River Watershed Management Group
Ular	5285005912	Rosemead			2-14, Upper Los Angeles River Watershed Management Group
Ular	5225011900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5251018902	Monterey Park			2-14, Upper Los Angeles River Watershed Management Group
Ular	5251023900	Monterey Park			2-14, Upper Los Angeles River Watershed Management Group
Ular	5262008900	Monterey Park			2-14, Upper Los Angeles River Watershed Management Group
Ular	5273016900	Monterey Park			2-14, Upper Los Angeles River Watershed Management Group
Ular	5226028904	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5226028905	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5226033907	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5226033906	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5226035901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5226030900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5227025903	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5227025917	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5233004905	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5233004903	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5233004914	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5233011900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5233012912	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5234002900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5234013903	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5234013904	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5234012903	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5234012902	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5274014900	Monterey Park			2-14, Upper Los Angeles River Watershed Management Group
Ular	5267006900	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	5267009902	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	5267009900	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	5267007900	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	5267007901	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	5267009903	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	5267009901	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	5185025908	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	8117024906	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5232014900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5235008908	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5235007918	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5235020911	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5235021906	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5235025903	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5240008900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5240007900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5246014916	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5246021900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5248012914	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5248010904	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6341009907	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6341023900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5247004905	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5247003901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5232021900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5232021903	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5233013903	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5233013902	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5233013907	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5233013904	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5233017903	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5233013905	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5239010906	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5232020913	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5278004901	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	5293022900	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	5171024902	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5171024910	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
Ular	5268010901	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	5294013900	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	5294014903	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6344001906	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6345011900	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6346006900	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6351024900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6351033902	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6351033903	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6351035901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6337034900	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6337034901	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6349023900	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6350017906	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6350016904	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6350027900	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6350026900	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6351004900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6344017900	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6346028912	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6349007915	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6349007910	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6349005900	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6350006901	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6350011900	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6350018904	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6008005902	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6346022901	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6346023900	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6346022900	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6346023901	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6346025907	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6348003901	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6348003900	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6352006901	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6352005902	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6352027902	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	6008015903	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6008015908	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6008013906	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6008014900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6008014905	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6008015904	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6008013924	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6008015928	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6008014901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6008016900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6008014903	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6010017901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6010023900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6010023901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6010017903	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6010021900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6010026923	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6354026901	Montebello			2-14, Upper Los Angeles River Watershed Management Group
Ular	2031008906	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2031008903	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2031008905	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5864001901	La nada Flintridge			2-14, Upper Los Angeles River Watershed Management Group
Ular	2519018900	San Fernando			2-14, Upper Los Angeles River Watershed Management Group
Ular	2519019900	San Fernando			2-14, Upper Los Angeles River Watershed Management Group
Ular	2519017900	San Fernando			2-14, Upper Los Angeles River Watershed Management Group
Ular	5607017901	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	2308010902	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2028027900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5823003912	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5823003909	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5653001902	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	2455040900	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	5844022900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5731002901	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5653016901	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5827007901	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	2447010900	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	5652003900	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5749020900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5719004915	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5719004900	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5719004914	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5719004902	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5734037902	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5723013907	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5319017900	South Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5435038904	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5319030903	South Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5319030900	South Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5319030906	South Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5445004902	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5445031905	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5445031902	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5445031901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5445031903	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5445031904	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5445004906	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5445031906	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
Ular	5352028902	Alhambra			2-14, Upper Los Angeles River Watershed Management Group
Ular	5352028901	Alhambra			2-14, Upper Los Angeles River Watershed Management Group
Ular	5409017906	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5409017905	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5226031908	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	5171024904	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5171025900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	6201017904	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6024022900	La County			2-14, Upper Los Angeles River Watershed Management Group
Ular	6071021916	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	6071021915	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	6071021914	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2444015900	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	5171015900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5723017911	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	5723017915	Pasadena			2-14, Upper Los Angeles River Watershed Management Group
Ular	2443025902	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	5435037904	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5172013900	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5387011901	Temple City			2-14, Upper Los Angeles River Watershed Management Group
Ular	5623020901	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5360011900	San Gabriel			2-14, Upper Los Angeles River Watershed Management Group
Ular	2784001901	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2784001902	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2784002903	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2784002902	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2468020904	Burbank			2-14, Upper Los Angeles River Watershed Management Group
Ular	5652005901	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5652004901	Glendale			2-14, Upper Los Angeles River Watershed Management Group
Ular	5360021901	San Gabriel			2-14, Upper Los Angeles River Watershed Management Group
Ular	5171015902	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	2634006908	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group
Ular	5445006909	Los Angeles			2-14, Upper Los Angeles River Watershed Management Group

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
			Upper San Gabriel River Ewmp		
San Gabriel	8558023905, 8558023910	County	Old Bassett Unified School District Site		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8125014039, 8125014807, 8125014901, 8125016017, 8125016018, 8125016019, 8125016020, 8125016021, 8125016022, 8125016023, 8125016024, 8125016025, 8125016027, 8125016800	Industry	Client Specified Industry No. 1		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8115001270, 8115001800, 8115001801, 8115001908, 8115001909, 8115002270, 8115002800, 8115002801, 8115002902, 8115002904, 8115002905, 8115002906, 8115002907, 8115002908, 8115002909	County	Client Specified Industry No. 2		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8554005900	Baldwin Park	Hilda L. Solis Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8544021900, 8544021901, 8544021902, 8544021903, 8544021904, 8544021905, 8544021907, 8544021908, 8544021909, 8544021910, 8544021911, 8544022902	Baldwin Park	Morgan Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8558022801, 8560028801, 8560028904	County	Shyer Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8564014907, 8564014908, 8564016909, 8564016912, 8564016913	Baldwin Park	Walnut Creek Nature Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8550001904, 8550001906	Baldwin Park	Barnes Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8156001910, 8156001911	County	Adventure Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8633002900	Glendora	Stanton Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8628001905	Glendora	Citrus Community College		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8632001900	Glendora	Sierra High School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8635009901	Glendora	La Fetra Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8638009906	Glendora	Finkbiner Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8640006901	Glendora	Whitcomb Continuation High		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8649020901	Glendora	Williams Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8648018906	Glendora	Cullen Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8653023902	Glendora	Willow Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8660017901	Glendora	Glendora High School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8726001900	County	Rorimer (Remote) Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8110029907	County	High Voltage Electril Easement Near San Angelo Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8742010901	County	Valinda Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8745014900	County	Wing Lane Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8760023909	Industry	Ron Hockwalt High School (Rhhs)		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8210021901	La Puente	Nelson Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8214024900	La Puente	La Puente High School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8214025900	La Puente	La Puente Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8212011901	County	Temple Ademy Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8212020901	County	Sparks Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8212011902	County	Allen J Martin Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8206014904	County	Avodo Heights Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8218009901	County	Truck Loading Dock		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8242004900	County	Glenelder Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8245004906	Industry	Commercial Buildings		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8248015900	County	Grandview Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8248015901	County	Rimgrove Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8251003900	La Puente	Del Valle Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8252013900	La Puente	Fairgrove Ademy		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8263030900	La Puente	Hurley (Remote) Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8641002273, 8641002904	Glendora	Dawson Avenue Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8428016907	County	Western Christian High School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8406001902	Covina	Fairvalley High (Continuation) School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8403013900	County	Charter Oak Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8403013901	County	Charter Oak Park (Cousd Parcel)		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8405008900	County	Ben Lomond Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8407001905	Covina	Hollenbeck Park		2-12, Upper San Gabriel River Watershed Management Groups

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
San Gabriel	8408021900	Covina	Valencia Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8409019906	Covina	Gladstone High School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8420013901	Covina	Northview High School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8421015900	County	Cypress Ball Park And Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8420013902	Covina	Northview High School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8419031905	County	Lark Ellen Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8426012902	Covina	Badillo Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8110001901	County	Vant Lot Near Sgr		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8550001907	Baldwin Park	Twin Lakes Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8435016901	County	Manzanita Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8435006900	County	Partially Vant Lot Near Irwindale Shopping Center		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8438004900	Baldwin Park	Central Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8438001904, 8459001900	Baldwin Park	Baldwin Park High School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8446007903	Covina	Sierra Vista Middle School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8451008900	Covina	Barran Park, Barran Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8472022901	County	Partially Vant Lot Near lifornia Elementary		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8535011901	Baldwin Park	Site At Top Of Baldwin Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8552011902	Baldwin Park	Sierra Vista High School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8554018900	Baldwin Park	Vineland Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8555012902	Baldwin Park	Jones (Charles D) Middle School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8555017900	Baldwin Park	Foster Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8561020900	Industry	Torch Middle School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8556009900	Baldwin Park	Elwin Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8560008900	County	Van Wig (J E) Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8564004902, 8564004903	Baldwin Park	Buildings And Parking Lot Near Channel		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8565024902	Industry	Madrid (Alfred S) Middle School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8550019901	Baldwin Park	De Anza Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8648001927	Glendora	George Manooshian Park And Goddard Middle School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8535011904	Baldwin Park	Olive Middle School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8725005906	County	Nogales High School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8110029002, 8110029903	County	Vant Lot Near Channel		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8564004901	Baldwin Park	Truck Loading/Parking		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8404010900	County	Cedargrove Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8656005909	Glendora	Sellers Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8628001902	Glendora	Citrus Community College (Buildings)		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8638027908	Glendora	Glendora Civic Center		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8562010901	County	Bassett Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8253014900	County	rolyn Rosas Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8431026001, 8431026900, 8431026901	Covina	Covina Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8431012900, 8431012901	Covina	Edna Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8265019900	County	Gloria Heer Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8428015902, 8428015903, 8428023901	Covina	Kahler Russell Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8430015900, 8430035900	Covina	Kelby Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8211003901	County	Los Robles County Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8215012900	County	Manzanita Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8648018908	Glendora	Ole Hammer Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8447031901	Covina	Parque Xalapa		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8207014900	County	Pepperbrook Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8762004902	County	Rowland Heights Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8110012903, 8110012904, 8110012905	County	San Angelo Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8244005915	County	Stimson Park (Steinmetz Park)		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8656005910	Glendora	Willow Springs Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8430026900	Covina	Civic Center Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8653002902, 8653002905, 8653002906	Glendora	Gladstone Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8407001909	Covina	Hollenbeck Park (Fcd Parcel)		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8727014902, 8727014903, 8727014904, 8727014905, 8727014906, 8727014907, 8727014908, 8727014909, 8727014910, 8727014911, 8727014912, 8727014913	County	Sunshine Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8635003901, 8635005901, 8635005902	Glendora	Sandburg School Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8760002900	County	Santana High (Continuation) School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8403013901	County	Unknown School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8465013900, 8465013901	County	Edgewood Ademy		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8272001900	County	Alvarado Middle School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8543015900	Baldwin Park	Holland (Jerry D) Middle School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8542001900	Baldwin Park	Walnut Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8429017900, 8429018900	Covina	Covina Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8402010939	Covina	Glen Oak Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8761001900	County	Jellick Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8546025900	Baldwin Park	Bursch (Charles) Elementary School		2-12, Upper San Gabriel River Watershed Management Groups

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San Gabriel	8415007900, 8415014902, 8415022900	Baldwin Park	Geddes (Ernest R) Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8443013900, 8443014900, 8443014901	Covina	Covina High School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8551021906, 8551021909	Baldwin Park	Tracy Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8641006900, 8641006901, 8641006902	Glendora	Washington Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8552012901	Baldwin Park	Kenmore Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8727004900	County	La Seda Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8536025902	Baldwin Park	Heath (Margaret) Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8428016908, 8428016907	County	Royal Oak Middle School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8434010901	Covina	Las Palmas Middle School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8635004901	Glendora	Sandburg Middle School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8414018900	Baldwin Park	Pleasant View Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8403005901	Covina	Charter Oak High School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8206005900	County	Don Julian Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8115010900	County	Andrews (Wallen) Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8728015900	County	Villacorta (Remote) Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8035007900	County	Meadow Green Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8464032900	County	Sunkist Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8465027900, 8465027901	County	Erwin (Thomas M) Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8270023902	County	Rowland (Remote) Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8178003900	County	Nelson (Ada S) Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8201010900	La Puente	Bassett Senior High School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8272020901, 8272020902	County	Killian Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8125027907	County	Mill Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8253014901	County	Farjardo (Remote) Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8203008900	La Puente	Sunset Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8203015902	La Puente	Lassalette Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8254008901, 8254008902	County	Baldwin Ademy Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8472018900	County	lifornia Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8250001912	Industry	Workman (William) High School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8251013904, 8251010900	La Puente	Sierra Vista Middle School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8727010900	County	Yorbita (Remote) Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8209001901	County	Wedgeworth Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8207004901	County	Wilson (Glen A) High School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8243036900	County	Cedarlane Middle School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8207004900	County	Bixby Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8290016900	County	Los Molinos Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8222022901	County	Los Altos Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8215022900, 8215022901	County	Newton Middle School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8211003902	County	Los Robles Ademy Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8215001900	County	Los Altos High School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8218013901, 8218014907	County	Shadybend Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8220009900	County	Palm Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8247011906, 8247011907	La Puente	Workman Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8444010900	Covina	TriCommunity Adult School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8641007900, 8641007901, 8641007902, 8641007903, 8641007904, 8641007905, 8641007906, 8641007907, 8641007908, 8641007909, 8641007910, 8641007911, 8641007912, 8641007913, 8641007917, 8641007918, 8641007919, 8641007920, 8641007921	Glendora	Glenoaks Golf Course		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8554001900, 8554001910	Baldwin Park	Baldwin Park City Hall		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8208025910	Industry	Industry City Hall		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8246016903	La Puente	La Puente City Hall		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8206003900, 8206003901, 8206004900	County	Avenue Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8120019905	County	San Jose Creek Overlook		2-12, Upper San Gabriel River Watershed Management Groups

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San Gabriel	8535020800, 8535020801, 8535020902, 8535020909, 8535021001, 8546001800, 8550001800, 8550001801, 8550001803, 8564012801	Baldwin Park	Sce Utility Electril Tower Brownfields		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8550003270, 8550003271, 8550003273, 8551011270, 8551011271, 8556009272, 8564002270, 8564019272	Baldwin Park	Ladwp Utility Electric Corridor		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8653003904	Glendora	Arrow High (Continuation)		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8445001913	Covina	Covina City Hall		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8444021903, 1904	Covina	CovinaValley Unified School District Sports Complex		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8026005900	County	Amelia Mayberry Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8269040900, 8269040901	County	Bill Blevins Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8295021900, 8295021901	County	Countrywood Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8642017901, 8642018900, 8642018907, 8642018908	Glendora	Louie Pompei Memorial Sports Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8171028900	County	Mcnees Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8171015901	County	Sorensen Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8205007900	County	Thomas S Burton Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8241020235, 8241021170, 8241025105	County	Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8031012903	County	Los Altos Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8269003901, 8269003902	County	Pathfinder Community Regional Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8119010905, 8119010906	County	Pico Rivera Municipal Golf Course		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8241001021, 8241001024	County	Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8206034017	County	Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8036016001, 8036016002	County	Southern lifornia University Of Health Sciences		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8125026800, 8125026802, 8125026902, 8125026903	County	Rio Hondo Community College		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8762020030	County	Wisdom Kids College		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8152020042	County	Painter Avenue Christian		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8156020022	County	Walker Ademy		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8453019014	Covina	Sacred Heart Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8432027005	Covina	Western Christian Isp		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8226011033	County	pella Christian Ademy		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8661020017	County	Foothill Montessori		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8130028067	County	Solid Faith Christian School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8428020017	Covina	Amerin Future Learning Center		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8032014900	County	El mino High (Continuation) School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8155018047, 8155018048, 8155019014	County	St. Gregory The Great		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8159003017	County	East Whittier Center		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8031011017	County	Children'S Ademy		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8762018902, 8762018903	County	Ybarra Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8428013901	Covina	Sonrise Christian		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8427003901	Covina	Sonrise Christian		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8402001001, 8402001002, 8402001022, 8402001023	Covina	St. Louise De Marillac Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8404002029	County	Cumorah Ademy		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8764001131, 8764001132	County	Southlands Christian Schools		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8276009900	County	Rowland High School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8159005901	County	Mulberry Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8177019902, 8177019904, 8177019905	County	Pioneer High School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8169008900, 8169008901, 8169008902, 8169020030, 8169020031, 8169020032, 8169020033, 8169020034, 8169020901, 8169020902, 8169020903, 8169020904	County	Aeolian Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8227004900	County	La Colima Elementary School		2-12, Upper San Gabriel River Watershed Management Groups

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San Gabriel	8028005900	County	Loma Vista Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8174021900	County	West Whittier Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8728010900, 8728010901	County	Northam (Remote) Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8031012903, 8031012904, 8031013900	County	Los Altos/Monte Vista Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8030008901, 8030008902	County	Telechron Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8176028900	County	Phelan Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8171015900	County	Sorensen (Christian) Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8258009900	County	Blandford Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8178023900, 8178025901, 8178025902	County	Los Nietos Middle School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8156028029, 8156028920	County	Mckibben (Howard J) Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8036009900	County	Whittier Christian School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8040012900	County	Granada Middle School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8174032901	County	Edwards (Katherine) Middle School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8155008900, 8155008901	County	Ceres Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8276002906	County	Shelyn Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8039014900	County	rden School Of Whittier		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8173022900	County	Washington Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8151027905	County	lifornia High School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8036023900	County	RanchoStarbuck Middle School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8465012011, 8465012013	County	Bishop Amat Memorial High		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8730004006, 8730004032	County	St. Martha'S Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8205014900	County	Mesa Robles Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8204022900	County	Grazide Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8215018002, 8215018022, 8215018023, 8215018026, 8215018027, 8215018028	County	St. Mark'S Lutheran Elementary		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8211013900	County	Orange Grove Middle School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8215012901	County	Kwis Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8178005001, 8178005021, 8178005025, 8178005027	County	Brethren Christian School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8684033036	Glendora	St. Lucy'S Priory High School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8555011011	Baldwin Park	East Valley Adventist		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8666008010	County	Leroy Boys Home Secondary		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8205023024	County	Um Molokan Elementary		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8228022900, 8228022901	County	Hillview Middle School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8170012023	County	Palm View Christian		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8214016020	La Puente	New Montessori School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8201009001	La Puente	St. Louis Of France		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8120005032	County	Creative Corners		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8640012061	Glendora	Foothill Christian		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8272001046	County	Oxford School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8404004054	County	Gateway Montessori And Preschool		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8453006036	Covina	Acia Montessori		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8762010011	County	Fairway Edution Center		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8631010017	Glendora	Live Oak nyon		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8226001002	County	Kids And Blocks Preschool & Kindergarten		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8222003050	County	Morning Star Christian School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8218016037	County	Hacienda Christian		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8210001028	La Puente	Sunset Christian		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8156027021, 8156027022	County	All Nations Ademy Of Excellence		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8152001012	County	Faith Lutheran Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8649014043	Glendora	Hope Lutheran Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8031013018	County	Le Lycee Franis De Downey		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8268014044	County	lvary		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	7016015120	County	First Evangelil Church Of Cerritos Children		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8401021062	County	Beginning Montessori Children'S House		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8401036038	County	Covina Baptist Ademy		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8655024039	Glendora	St. Dorothy Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8543009053	Baldwin Park	Creative Planet School Of The Arts		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8251016044	La Puente	St. Joseph Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8553007029	Baldwin Park	St. John The Baptist		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8258019036	County	Rowland Christian Preschool		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8658002033, 8658006015	Glendora	Bluebird Preserve		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8125012910, 8125062003, 8125062904	County	Whittier Narrows Equestrian Center		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8552017019	Baldwin Park	Mid Valley Learning Centers		2-12, Upper San Gabriel River Watershed Management Groups

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San Gabriel	8247013904, 8247014900, 8262001010, 8262001011, 8262001900, 8262001902, 8262011011, 8262011930, 8262011931, 8262012028, 8262012270, 8262012271, 8262012272, 8262012273, 8262012274, 8262012275, 8262012276, 8262015900, 8262015902, 8262015904, 8262015905, 82	Industry	Industry Hills Golf Club		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8115001904, 8115001906	County	San Jose Creek Water Reclamation Plant West		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8125021933, 8125026026, 8125026027, 8125026028	County	Puente Hills Materials Recovery Facility		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8710002902, 8710002903, 8710003907, 8710003916	County	lifornia Polytechnic University Pomona		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8265028900	County	Trailview Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8265002904, 8265002906, 8265002908, 8265003904, 8295019900, 8295019901, 8295019903	County	Peter F Schabarum Regional County Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8426026016, 8426026018	County	Via Verde Country Club		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8119010905, 8119010906	County	Streamland Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8391015025, 8391015027	County	lvary Baptist Church And Schools		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8226020905	County	Orchard Dale Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8026006900	County	rmela Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8167029907, 8167029908	County	Lake Marie Elementary School		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8636047021, 8636047022	County	Brodiaea Reserve		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8636013005, 8636013006, 8636013012, 8636016009	Glendora	Brodiaea Reserve		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8658002019, 8658017030, 8658017031, 8658017032, 8658017033, 8658017034, 8658017035, 8658017036, 8658017037, 8658017038, 8658017039, 8658017040, 8658017041, 8658017050, 8658017054, 8658017063, 8658018032, 8658018033, 8658018034, 8658018035, 8658018036, 86	Glendora	Gordon Mull Preserve		2-12, Upper San Gabriel River Watershed Management Groups

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
San Gabriel	8644010056, 8644010902, 8644013905, 8644013906, 8644013907, 8644014271, 8644014273, 8644014901, 8644014902, 8644014904, 8644014905, 8644014907, 8644014909, 8644014910, 8644014911, 8644015911, 8644015914, 8644015915, 8644027270, 8644027901, 8644027902, 86	Glendora	South Hills Park		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8764002007, 8764002008	County	Los Angeles Royal Vista Golf Course		2-12, Upper San Gabriel River Watershed Management Groups
San Gabriel	8762022002, 8762022005, 8762022006, 8762022008, 8762023001, 8762023002	County	Los Angeles Royal Vista Golf Course		2-12, Upper San Gabriel River Watershed Management Groups

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
			Upper Santa Clara River Ewmp		
Upper Santa Clara	2802003908	L A Co Flood Control Dist			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2802004900	L A County			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2805013900	Saugus Union School Dist			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2811029900	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2811029901	Saugus Union School District			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2836018900	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2837033900	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2844013900	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2844021900	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2844006904	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2854038900	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2865007906	Newhall Co Water Dist			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2865024901	L A County			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2866014900	L A County			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2866020909	Castaic Union School District			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2866020910	Castaic Union School District			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2866015900	L A County			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2866014934	Castaic Union School Dist			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2866020908	Castaic Union School District			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2825010929	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2827040900	La Co Flood Control Dist			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2827034901	L A Co Flood Control Dist			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2833016900	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2827022900	L A Co Flood Control Dist			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2827022901	L A Co Flood Control Dist			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2827001901	L A County			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2829009911	L A Co Flood Control Dist			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2833012900	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2831026914	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2827001908	L A County			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2827001900	L A County			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2827001902	L A County			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2831014900	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2826130900	L A County			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2827001904	L A County			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2827001903	L A County			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2833014902	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2831006900	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2831009900	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2833014903	City Of Santa Clarita			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2833005904	L A County			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2855006904	William S Hart Union High School			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2855006902	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2855006903	William S Hart Union High School			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2833005903	L A County			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2855006900	William S Hart Union			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2855011902	L A Co Flood Control Dist			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2834024918	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2855006901	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2855011901	L A Co Flood Control Dist			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2858012900	Newhall School Dist			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2855011900	L A Co Flood Control Dist			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2859014900	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2859030900	L A County			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2859030901	L A County			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2859004902	L A County Housing Authority			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2859030902	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2858007900	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2836036900	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2836064900	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2860003900	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2861026900	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2861009905	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2861009901	L A County			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2811065907	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2861009903	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2861009907	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2861009906	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2812009900	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	3244160900	L A County			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2826119900	L A County			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2837020900	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2826022901	L A County			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2834023950	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2826160901	La County Park			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2810041900	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2810032901	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2831011904	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2811083902	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2836012905	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2802038904	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2802038902	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2865012916	L A County			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2865021902	L A County			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2826160900	La Co Flood Control Dist			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2866047900	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2810032902	Saugus Union School Dist			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2810070900	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2861009900				2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2826075900	L A County			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	3270021900	L A County			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2865018900	L A County			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2836066901	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2864003920	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
Upper Santa Clara	2810110900				2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2864003919	L A County			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	3270020902	L A County			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2831006901	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2831006903	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2831006902	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2810109900	L A Co Flood Control Dist			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2826085900	Newhall School District			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2864003921	L A County			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2864003922	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	3244035900	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2833005902	L A County			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2836018901	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2865012912	L A County			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2810001903	Hart William S Union High School			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2866005806				2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2861009904	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2811062904	Santa Clarita City			2-16, Upper Santa Clara River Watershed Management Group
Upper Santa Clara	2859002901	L A Co Flood Control Dist S By S			2-16, Upper Santa Clara River Watershed Management Group

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
				Ballona Creek Emwp	
Ballona	4259018901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4261003900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4261011911	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4261011912	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4261013900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4261018900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4262004900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4263022901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4262023900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4261010908	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4262032901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4263021904	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	6017012900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	6019003905	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4105016900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4106026900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4211017900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4218002908	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4218002906	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4249011900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4258005900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4258016900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4365009900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4005023900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4006013900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4006014900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4006011901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4006019900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4006019901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4013029901	Inglewood			2-6, Ballona Creek Watershed Management Group
Ballona	4014007900	Inglewood			2-6, Ballona Creek Watershed Management Group
Ballona	4014007901	Inglewood			2-6, Ballona Creek Watershed Management Group
Ballona	4015013901	Inglewood			2-6, Ballona Creek Watershed Management Group
Ballona	4015015900	Inglewood			2-6, Ballona Creek Watershed Management Group
Ballona	4017026900	Inglewood			2-6, Ballona Creek Watershed Management Group
Ballona	4017026901	Inglewood			2-6, Ballona Creek Watershed Management Group
Ballona	4017032902	Inglewood			2-6, Ballona Creek Watershed Management Group
Ballona	4017026903	Inglewood			2-6, Ballona Creek Watershed Management Group
Ballona	4017026902	Inglewood			2-6, Ballona Creek Watershed Management Group
Ballona	4017032908	Inglewood			2-6, Ballona Creek Watershed Management Group
Ballona	4017031905	Inglewood			2-6, Ballona Creek Watershed Management Group
Ballona	4127016901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4205015902	Culver City			2-6, Ballona Creek Watershed Management Group
Ballona	4206027900	Culver City			2-6, Ballona Creek Watershed Management Group
Ballona	4208027900	Culver City			2-6, Ballona Creek Watershed Management Group
Ballona	4208032900	Culver City			2-6, Ballona Creek Watershed Management Group
Ballona	4210021900	Culver City			2-6, Ballona Creek Watershed Management Group
Ballona	4210025900	Culver City			2-6, Ballona Creek Watershed Management Group
Ballona	4213006901	Culver City			2-6, Ballona Creek Watershed Management Group
Ballona	4215005905	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4213026902	Culver City			2-6, Ballona Creek Watershed Management Group
Ballona	4215031902	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4251010902	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4252023900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4254023901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4314014900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5001002908	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5003014920	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5003013901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5003021900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5005006903	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5005006907	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5005007904	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5005007911	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5005005900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5005006909	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5005007905	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5005006910	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5005006911	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5005007909	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5005007907	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5005006912	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5005005901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5005006908	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5005007913	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5005007912	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5005007914	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5005007915	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5005007916	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5005007906	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5005007910	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5005019900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5005007908	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5006007900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5006008900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5006009902	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5007011900	La County			2-6, Ballona Creek Watershed Management Group
Ballona	5010003900	La County			2-6, Ballona Creek Watershed Management Group
Ballona	5014001922	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5014024901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5014024900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5016015926	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5017001905	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5017013901	Los Angeles			2-6, Ballona Creek Watershed Management Group

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
Ballona	5017013904	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5017020900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5018003914	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5018024900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5019004903	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5020029902	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5021017902	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5023027900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5024018901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5024018900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5024019900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5024018902	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5024019904	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5024029901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5028004902	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5030015900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5031004900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5032003901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5032003902	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5032003900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5033004901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5034010900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5036026912	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5036026901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5036025910	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5036026914	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5036026900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5036027900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5036026902	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5037028909	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5040004900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5040016908	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5040030905	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5041011902	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5041013905	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5041026900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5041034900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5041034901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5042008904	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5042008902	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5045001900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5046004902	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5045019900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5046013900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5047018924	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5049017901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5050006905	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5050006909	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5050022900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5051038911	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5054029912	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5054031901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5054029906	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5059003901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5123008910	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5124009902	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5124020903	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5124023911	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5124009903	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5124023909	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5124021906	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	6001016900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	6001019900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	6001014900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	6001017901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	6002024900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	6003013908	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	6003013906	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	6003005908	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	6003006901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	6003013907	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	6004002903	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	6004006900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	6016023912	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5056018912	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5056014908	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5056024906	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5056024901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5056025908	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5056025909	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5056024905	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5056024904	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5056030904	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5056024903	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5056030909	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5060030905	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5060030901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5060030902	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5060031900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5061014900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5071022900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5072013900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5072014901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5072012917	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5072014902	Los Angeles			2-6, Ballona Creek Watershed Management Group

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
Ballona	5073001900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5073001901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5073018900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5073013900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5073018901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5075014900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5075035907	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5075034906	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5075035911	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5075033900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5075035900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5075035913	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5075033901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5076008900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5076007900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5077006900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5077009913	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5077006901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5077027900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5077026903	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5078001920	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5077021900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5078002904	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5077026902	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5078002905	Los Angeles			2-6, Ballona Creek Watershed Management Group
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Ballona	5080016907	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5080016910	Los Angeles			2-6, Ballona Creek Watershed Management Group
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Ballona	5080023900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5080023903	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5080023904	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5080032903	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5082007910	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5082011903	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5082007903	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5082012900	Los Angeles			2-6, Ballona Creek Watershed Management Group
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Ballona	5092011901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5092011904	Los Angeles			2-6, Ballona Creek Watershed Management Group
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Ballona	5094006903	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5094006904	Los Angeles			2-6, Ballona Creek Watershed Management Group
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Ballona	5135025900	Los Angeles			2-6, Ballona Creek Watershed Management Group
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Ballona	5141006904	Los Angeles			2-6, Ballona Creek Watershed Management Group
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Ballona	5141016903	Los Angeles			2-6, Ballona Creek Watershed Management Group
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Ballona	5142023900	Los Angeles			2-6, Ballona Creek Watershed Management Group
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Ballona	5142013906	Los Angeles			2-6, Ballona Creek Watershed Management Group
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Ballona	5157015905	Los Angeles			2-6, Ballona Creek Watershed Management Group
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Ballona	5501008908	Los Angeles			2-6, Ballona Creek Watershed Management Group
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Ballona	5501010904	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5501020900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5501010907	Los Angeles			2-6, Ballona Creek Watershed Management Group
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Ballona	5502018902	Los Angeles			2-6, Ballona Creek Watershed Management Group
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Ballona	5504008901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5507017900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5513030900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5516007900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5517007916	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5517007917	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5517007918	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5517014900	Los Angeles			2-6, Ballona Creek Watershed Management Group

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
Ballona	5518032906	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5518032900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5520014900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5520018901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5522023903	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5532013900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5533017901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5533018900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5533014900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5533017900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5535032900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5535032907	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5536014900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5535032905	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5535032904	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5535032906	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5535032903	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5536014905	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5535033900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5535032901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5535032902	Los Angeles			2-6, Ballona Creek Watershed Management Group
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Ballona	4255020900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4255021900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4256011902	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4256011901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4301017904	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4305003900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4307013909	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4307012902	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4307014908	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4309002901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4309002902	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4318001900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4319001902	Beverly Hills			2-6, Ballona Creek Watershed Management Group
Ballona	4319001900	Beverly Hills			2-6, Ballona Creek Watershed Management Group
Ballona	4319001901	Beverly Hills			2-6, Ballona Creek Watershed Management Group
Ballona	4319003900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4321015900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4325005932	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4325030900	Los Angeles			2-6, Ballona Creek Watershed Management Group
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Ballona	4331012901	Beverly Hills			2-6, Ballona Creek Watershed Management Group
Ballona	4331012900	Beverly Hills			2-6, Ballona Creek Watershed Management Group
Ballona	4333017904	Beverly Hills			2-6, Ballona Creek Watershed Management Group
Ballona	4333017906	Beverly Hills			2-6, Ballona Creek Watershed Management Group
Ballona	4333017905	Beverly Hills			2-6, Ballona Creek Watershed Management Group
Ballona	4333026900	Beverly Hills			2-6, Ballona Creek Watershed Management Group
Ballona	4333026901	Beverly Hills			2-6, Ballona Creek Watershed Management Group
Ballona	4333031900	Beverly Hills			2-6, Ballona Creek Watershed Management Group
Ballona	4336008909	West Hollywood			2-6, Ballona Creek Watershed Management Group
Ballona	4336008910	West Hollywood			2-6, Ballona Creek Watershed Management Group
Ballona	5063021901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5063022908	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5064029908	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5064024901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5068008900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5069031902	Los Angeles			2-6, Ballona Creek Watershed Management Group
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Ballona	5070013907	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5070013904	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5088010900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5088018900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5088005900	Los Angeles			2-6, Ballona Creek Watershed Management Group
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Ballona	5527021900	Los Angeles			2-6, Ballona Creek Watershed Management Group
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Ballona	5529009900	West Hollywood			2-6, Ballona Creek Watershed Management Group
Ballona	5529020901	Los Angeles			2-6, Ballona Creek Watershed Management Group
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Ballona	5529023901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5531020900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4340003900	West Hollywood			2-6, Ballona Creek Watershed Management Group
Ballona	4341029901	Beverly Hills			2-6, Ballona Creek Watershed Management Group
Ballona	4341029900	Beverly Hills			2-6, Ballona Creek Watershed Management Group
Ballona	4358003900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4359014902	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4359019900	Beverly Hills			2-6, Ballona Creek Watershed Management Group
Ballona	4359018900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4360024900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5531003900	West Hollywood			2-6, Ballona Creek Watershed Management Group
Ballona	5531003901	West Hollywood			2-6, Ballona Creek Watershed Management Group
Ballona	5533009900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5533009901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5534012909	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5536005900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5545016900	Los Angeles			2-6, Ballona Creek Watershed Management Group

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
Ballona	5545017907	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5545019914	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5545017902	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5545017904	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5545019915	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5545017900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5546009906	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5547003908	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5547015900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5547015904	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5547016908	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5547003907	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5547015901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5547015908	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5547030900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5547009900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5547015903	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5547015905	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5547016907	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5548014900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5550013900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5550025902	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5550025903	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5559003901	West Hollywood			2-6, Ballona Creek Watershed Management Group
Ballona	5559003900	West Hollywood			2-6, Ballona Creek Watershed Management Group
Ballona	5401015900	Los Angeles			2-6, Ballona Creek Watershed Management Group
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Ballona	5537009910	Los Angeles			2-6, Ballona Creek Watershed Management Group
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Ballona	5591022901	Los Angeles			2-6, Ballona Creek Watershed Management Group
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Ballona	5122004900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5122014907	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5122017908	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5126001900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5126018917	Los Angeles			2-6, Ballona Creek Watershed Management Group
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Ballona	5128016904	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5128016910	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5134007921	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5134022903	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5134022902	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4212001900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4134020903	Culver City			2-6, Ballona Creek Watershed Management Group
Ballona	4208023902	Culver City			2-6, Ballona Creek Watershed Management Group
Ballona	4206026906	Culver City			2-6, Ballona Creek Watershed Management Group
Ballona	4210026903	Culver City			2-6, Ballona Creek Watershed Management Group
Ballona	4255009901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4255006900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4301018900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4213026903	Culver City			2-6, Ballona Creek Watershed Management Group
Ballona	4254023900	Los Angeles			2-6, Ballona Creek Watershed Management Group
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Ballona	4308019900	Los Angeles			2-6, Ballona Creek Watershed Management Group
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Ballona	5048013901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5048012900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4249002900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4249026900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4249001901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4217011903	Culver City			2-6, Ballona Creek Watershed Management Group
Ballona	4249025900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4213026900	Culver City			2-6, Ballona Creek Watershed Management Group
Ballona	4212007900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4102015900	Inglewood			2-6, Ballona Creek Watershed Management Group
Ballona	5047014900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4259020900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4001013900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4001014901	Inglewood			2-6, Ballona Creek Watershed Management Group
Ballona	4013028900	Inglewood			2-6, Ballona Creek Watershed Management Group
Ballona	4013025900	Inglewood			2-6, Ballona Creek Watershed Management Group
Ballona	4014017900	Inglewood			2-6, Ballona Creek Watershed Management Group
Ballona	4235020901	Culver City			2-6, Ballona Creek Watershed Management Group
Ballona	4204013900	Culver City			2-6, Ballona Creek Watershed Management Group

Region	Apn	Jurisdiction/City	Land Use Type	Address	Figure Number and Title
Ballona	4205012903	Culver City			2-6, Ballona Creek Watershed Management Group
Ballona	4206030902	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5047014901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5047014902	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5048017901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5065015906	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5048008901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5048014901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5048017900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4311031901	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4211011900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4218003900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4221024908	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4210017900	Culver City			2-6, Ballona Creek Watershed Management Group
Ballona	4221008900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4217029903	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4220015900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4221006900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4221024907	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4218002907	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4203011902	Culver City			2-6, Ballona Creek Watershed Management Group
Ballona	4210026902	Culver City			2-6, Ballona Creek Watershed Management Group
Ballona	4019019900	La County			2-6, Ballona Creek Watershed Management Group
Ballona	4221024900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4221024909	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4216013900	Culver City			2-6, Ballona Creek Watershed Management Group
Ballona	4210015902	Culver City			2-6, Ballona Creek Watershed Management Group
Ballona	4210016900	Culver City			2-6, Ballona Creek Watershed Management Group
Ballona	5142026915	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5142026921	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4220012900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	6001013906	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	6001001900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5123008905	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4206034906	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5046013905	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5066013900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4211022900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4211013900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4006011900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	4235021900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5124001900	Los Angeles			2-6, Ballona Creek Watershed Management Group
Ballona	5032004908	Los Angeles			2-6, Ballona Creek Watershed Management Group