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

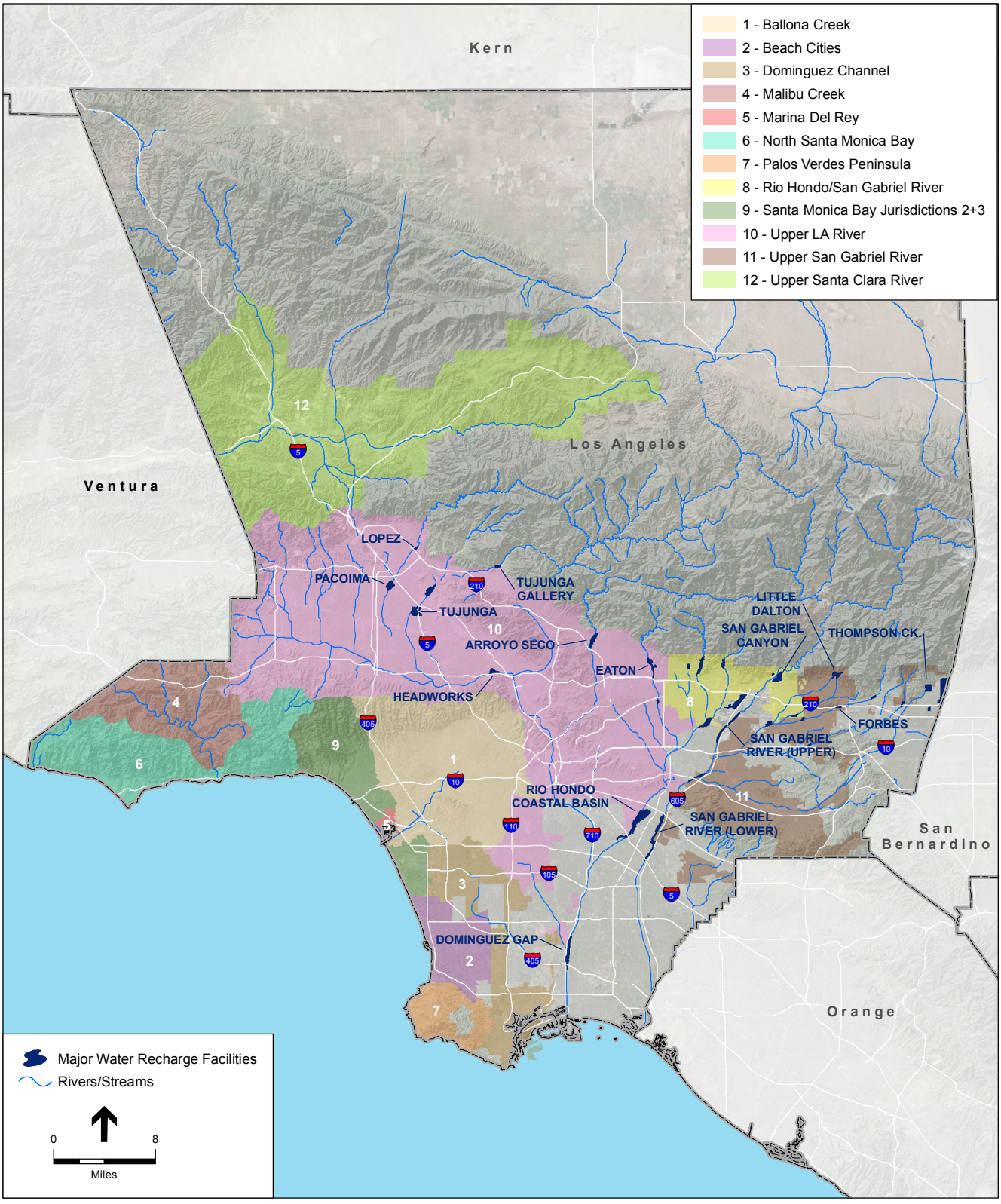
Water Agencies

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