Section 3.18
Utilities/Service Systems

3.18.1 Introduction

This section describes the geographic and regulatory setting for the existing utility systems that serve the project study area including water supply, wastewater conveyance and treatment, stormwater conveyance, solid waste generation and disposal, and electrical/natural gas service and availability. This section also identifies the impacts on those systems that could occur due to implementation of the *2020 LA River Master Plan* and mitigation measures that would reduce or avoid any significant impacts, when feasible.

The analysis in this section includes impact determinations under CEQA for the *2020 LA River Master Plan* that are applicable to all 18 jurisdictions in the study area, including the County and non-County jurisdictions (17 cities). Except for significant and unavoidable impacts, all identified significant environmental effects of the proposed *2020 LA River Master Plan* can be avoided or reduced to a less-than-significant level if the mitigation measures identified in this PEIR are implemented. These mitigation measures will be implemented for subsequent projects that are carried out by the County. Because some later activities under the *2020 LA River Master Plan* would not be carried out by the County, the County cannot enforce or guarantee that the mitigation measures would be incorporated. Therefore, where this PEIR concludes a less-than-significant impact for later activities carried out by the County, the impact would be significant and unavoidable when these activities are not carried out by the County.

3.18.2 Geographic Setting

3.18.2.1 Water

Statewide Sources

State Water Project

The State Water Project (SWP) is operated by the California Department of Water Resources and is an integral part of the effort to ensure business and industry, urban and suburban residents, and farmers throughout a majority of California have sufficient water. The SWP was designed to deliver nearly 4.2 million acre-feet (AF) of water per year (AFY). The SWP is the largest State-built, multipurpose, user-financed water project in the United States. Nearly two-thirds of residents in California receive at least part of their water from the SWP, with approximately 70 percent of the SWP's contracted water supply going to urban users and 30 percent to agricultural users. The primary purpose of the SWP is to divert and store water during wet periods in Northern and Central California and distribute it to areas of need in Northern California, the San Francisco Bay area, the San Joaquin Valley, the Central Coast, and Southern California. The availability of SWP supplies can be highly variable. A wet water year may be followed by a dry or critically dry year. Ongoing regulatory restrictions, such as those imposed by federal biological opinions on the effects of SWP

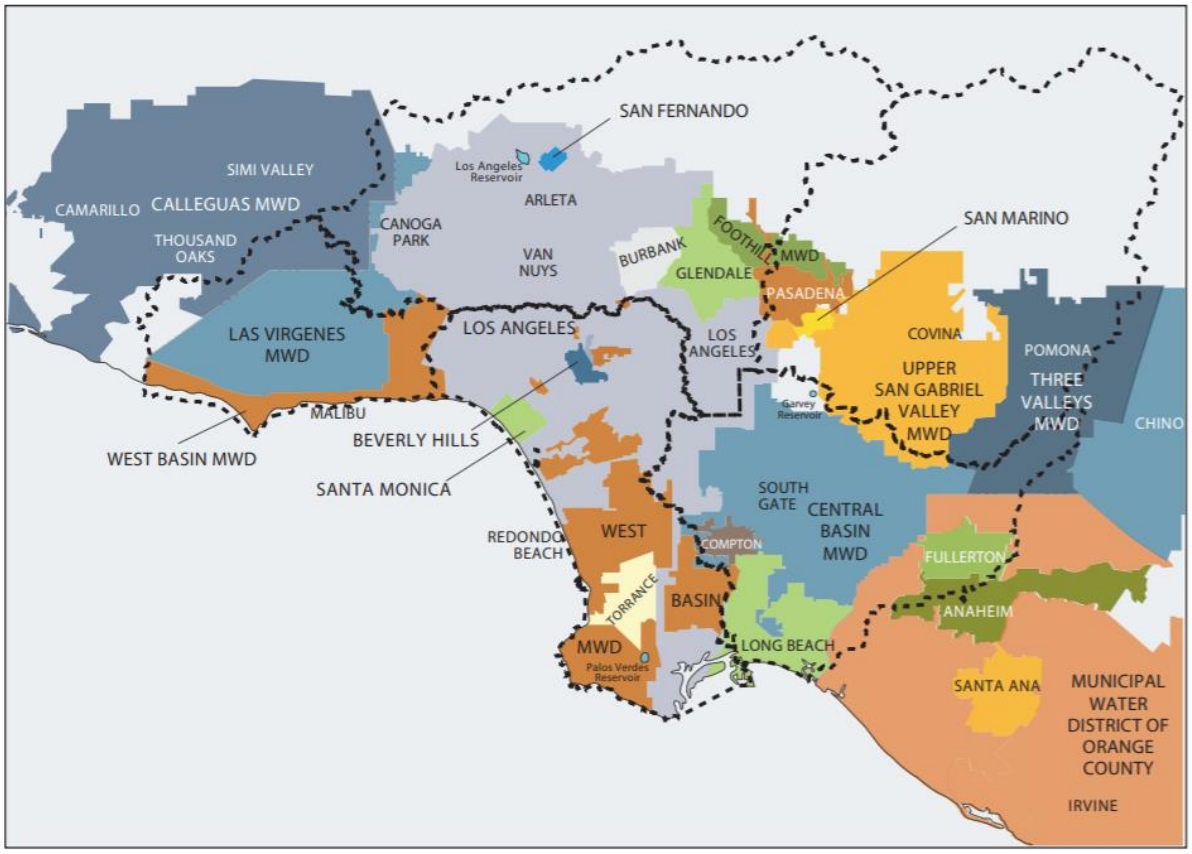
and the federal Central Valley Project operations on certain marine life, also contribute to the challenge of determining the SWP's water delivery reliability.

Colorado River Aqueduct

Stretching 242 miles from the Colorado River on the California-Arizona border to its final holding reservoir near Riverside, California, the Colorado River Aqueduct consists of more than 90 miles of tunnels, nearly 55 miles of cut-and-cover conduit, almost 30 miles of siphons, and five pumping stations. The Colorado River Aqueduct is operated by the Metropolitan Water District of Southern California (MWD) and supplies approximately 1.2 million AFY—more than a billion gallons a day. It is Southern California's primary source of drinking water.

Regional Suppliers

Figure 3.18-1 illustrates the various retail and wholesale water suppliers in the study area, based on subregions identified in the Greater Los Angeles County Integrated Regional Water Management Plan (IRWMP).



Source: GLAC-IRWMP 2014.

Figure 3.18-1. Regional Water Providers

Metropolitan Water District of Southern California

MWD was authorized by the California Legislature in 1928 to advance a regional approach to water supply in Southern California. MWD's initial mission was to construct the 242-mile Colorado River

Aqueduct to its service area on the Southern California coastal plain. MWD's service area had an assessed property valuation of approximately $2 billion at the time. As of 2015, MWD serves a six-county service area with a property valuation of approximately $2 trillion. MWD supplies water from both the Colorado River and Northern California via the SWP while investing in a variety of storage, local supply, and conservation initiatives.

MWD publishes an Integrated Water Resources Plan (IWRP), a long-term strategy for water supply management, approximately every 5 years. The 2015 IWRP includes projected supplies and demands through year 2040. Table 3.18-1 summarizes average targeted supplies and Table 3.18-2 summarizes projected local supplies through 2040 in 5-year increments by project type. Table 3.18-3 summarizes the projected demands for MWD by type of use. Conservation targets outlined in the 2015 IWRP are expected to reduce the demand for potable water over the next 20 years.

Table 3.18-1. 2015 IWRP Update Total Level of Average-Year Supply Targeted (Acre-Feet)

	2020	2025	2030	2035	2040
Retail Demands Before Conservation	5,219,000	5,393,000	5,533,000	5,663,000	5,792,000
Total Conservation Target	1,096,000	1,197,000	1,310,000	1,403,000	1,519,000
Retail Demands After Conservation	4,123,000	4,196,000	4,223,000	4,260,000	4,273,000
Minimum CRA Diversion Target	900,000	900,000	900,000	900,000	900,000
Average Year SWP Target	984,000	984,000	1,213,000	1,213,000	1,213,000
Total Local Supply Target	2,307,000	2,356,000	2,386,000	2,408,000	2,426,000
Total Supply Reliability Target	4,191,000	4,240,000	4,499,000	4,521,000	4,539,000

Source: MWD 2016.
CRA = Colorado River Aqueduct

Table 3.18-2. Projections of Existing and Under-Construction Local Supplies by Project Type (Acre-Feet)

Local Supply	2020	2025	2030	2035	2040
Groundwater Production	1,290,000	1,288,000	1,288,000	1,288,000	1,289,000
Surface Production	110,000	110,000	110,000	110,000	110,000
Los Angeles Aqueduct	261,000	264,000	264,000	266,000	268,000
Seawater Desalination	51,000	51,000	51,000	51,000	51,000
Groundwater Recovery	143,000	157,000	163,000	165,000	167,000
Recycling	436,000	466,000	486,000	499,000	509,000
Other non-MWD imports	13,000	13,000	13,000	13,000	13,000
Total Local Supplies	2,304,000	2,348,000	2,374,000	2,392,000	2,406,000

Source: MWD 2016.

Table 3.18-3. Projected MWD Water Demand by Type of Use (Acre-Feet)

Demand on MWD	Year				
	2020	2025	2030	2035	2040
Consumptive Use	1,689,000	1,750,000	1,791,000	1,840,000	1,879,000
Seawater Barrier	5,000	2,000	2,000	2,000	2,000
Replenishment	166,000	166,000	166,000	166,000	166,000
Total Demand on MWD	1,859,000	1,918,000	1,959,000	2,008,000	2,048,000

Source: MWD 2016.

MWD has a basic entitlement of 550,000 AFY of Colorado River water plus a priority for up to an additional 662,000 AFY. MWD can obtain additional water under this priority when the U.S. Secretary of the Interior determines that one or both of the following conditions exists (MWD 2016):

1. The California SWP anticipates that water supplies available to MWD for the next 20 years will average between 984,000 and 1,213,000 AF.
2. The Colorado River faces current and future imbalances between water supply and demand in the Colorado River Basin due to long-term drought conditions. The long-term imbalance in future supply and demand is projected to be approximately 3.2 million AF by 2060. Between 2000 and 2015 there were only 3 years when the Colorado River flow has been above average (MWD 2016).

Approximately 40 million people rely on the Colorado River Aqueduct and its tributaries for water, with 5.5 million acres of land using Colorado River water for irrigation. Climate change will also affect future supply and demand as increasing temperatures may increase evapotranspiration from vegetation and water loss due to evaporation in reservoirs. This will reduce the supply available from the Colorado River Aqueduct, resulting in gaps between demands and supplies. The Colorado River Aqueduct projections for supply available to MWD total 966,000 AF in year 2025, decreasing incrementally to 953,000 AF in year 2040 (MWD 2016).

Local Suppliers

Various water providers serve the 17 cities and unincorporated County areas along the LA River. Some cities' utility departments operate individual services, such as Long Beach, Downey, Compton, Lynwood, Paramount, South Gate, Huntington Park, Glendale, and Burbank. Other cities utilize independent water providers such as Golden State Water Company (GSWC), California State Water Company, and several smaller providers. The City of Los Angeles is served by the Los Angeles Department of Water and Power (LADWP), which has the largest service area, at 469 square miles, managing the Los Angeles Aqueducts (LAA), local groundwater, and supplemental water purchased from MWD.

Central Basin Metropolitan Water District

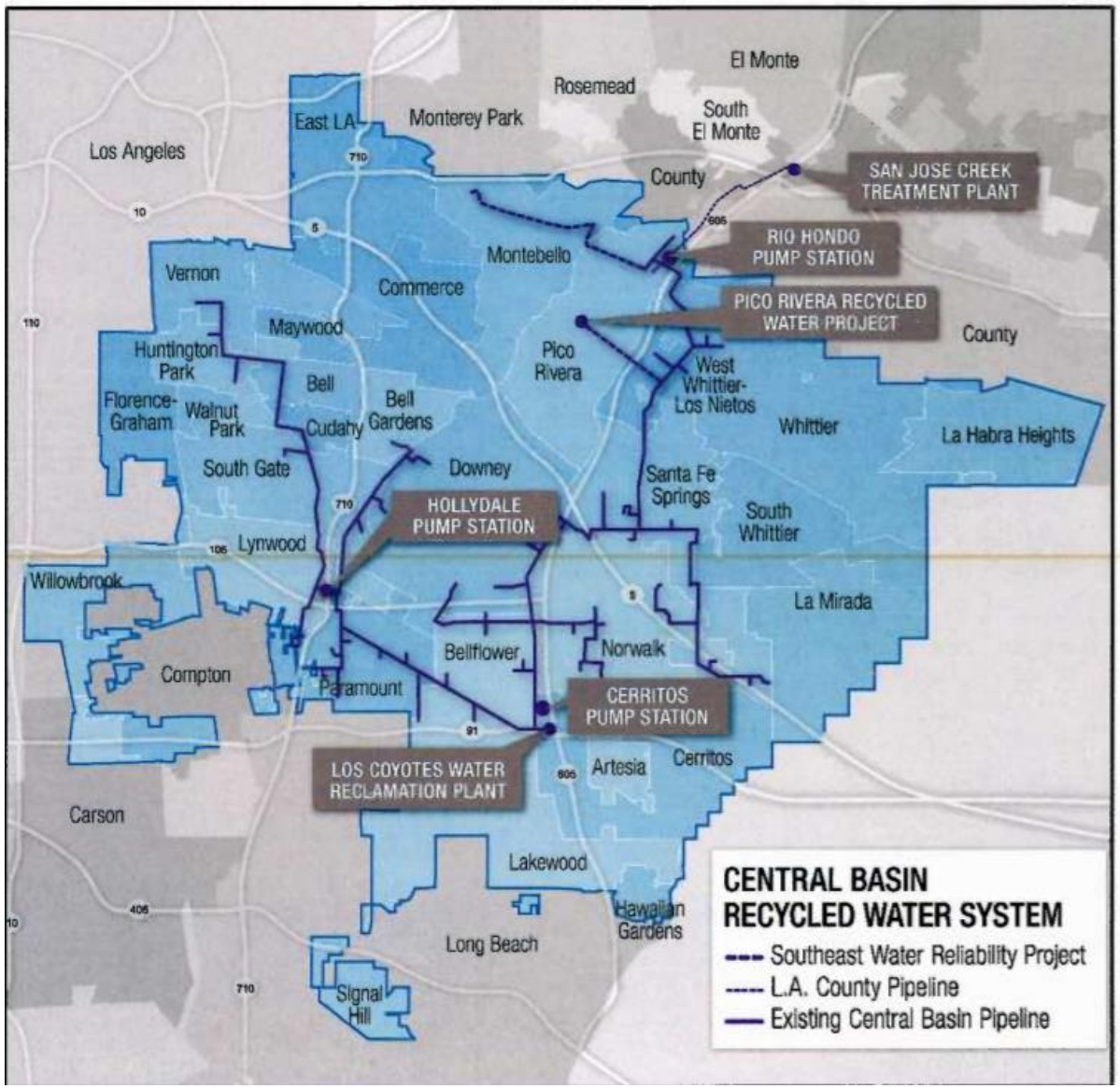
The Central Basin Metropolitan Water District (CBMWD) is one of 26 member agencies of MWD. CBMWD is a wholesale water agency that purchases its potable supplies from MWD and its recycled water from the Los Angeles County Sanitation Districts (LACSD) to distribute within and outside its service area. The CBMWD service area covers approximately 227 square miles and includes 24 cities and several unincorporated areas in southeast Los Angeles County. CBMWD supplies a population of approximately 1.6 million people according to the Southern California Association of Governments

(SCAG); however, due to the undercounting of the area's immigrant population, the population is considered to be closer to 2 million (CBMWD 2016).

Groundwater has for many years been the primary supply of water within the CBMWD service area. The Central Groundwater Basin is predominantly composed of a confined, pressurized aquifer system, with two large, unconfined, merged aquifer forebays, the Montebello Forebay and the Los Angeles Forebay. Twelve aquifers underlie the Central Groundwater Basin. The average retail agency in the CBMWD service area relies on groundwater production for 70 percent of its water supply, while some agencies rely exclusively on groundwater to meet water demands. CBMWD currently supplies approximately 30,344 AFY of imported water from MWD's Colorado River Aqueduct and the SWP to its retail agencies. Colorado River transactions are potentially available to supply additional water up to the Colorado River Aqueduct capacity of 1.25 million AF on an as-needed basis (CBMWD 2016).

Although most of the groundwater supply is extracted from the Central Groundwater Basin, there are a number of water retailers that retain groundwater rights within the Main San Gabriel Groundwater Basin (Main Basin) that extract and use groundwater sources within their Central Groundwater Basin service area. The Main Basin underlies most of the San Gabriel Valley, north of the Central Groundwater Basin. It is bounded by the San Gabriel Mountains to the north, the San Jose Hills to the east, the Puente Hills to the south, and the Raymond fault and a series of other hills to the west. Surface area of the Main Basin is approximately 167 square miles and it has a freshwater storage capacity estimated to be about 8.6 million AF. The total amount of water extracted from the Main Basin and used within the Central Groundwater Basin service area over the last 5 years averages to approximately 31,500 AFY. The total amount of groundwater produced in the Central Groundwater Basin and the Main Basin has remained fairly consistent between 2010 and 2015. This is mainly because both basins are adjudicated, so groundwater extractions in any given year are limited.

In response to increasing demands for water, limitations on imported water supplies, and the threat of drought, CBMWD developed a regional water recycling program with two distribution systems connected by a 70-mile distribution system. Through this network, CBMWD is able to distribute treated recycled water obtained through LACSD, delivering approximately 5,000 AF of recycled water annually to over 300 industrial, commercial, and landscape connections. The recycled water system is illustrated in Figure 3.18-2.



Source: City of Vernon 2010 UWMP.

Figure 3.18-2. Central Basin Recycled Water System

Groundwater production will remain consistent due to the limited amount of extractable pumping rights within the basin, while recycled water and conserved water will meet the rise in demand. MWD projects a decrease in reliance on imported water due to increased local supply and a variety of water conservation strategies. Projected water supplies are summarized in Table 3.18-4. Table 3.18-5 summarizes CBMWD's projected demands for potable and raw water through 2040.

Table 3.18-4. Projected Water Supplies CBMWD (Acre-Feet)

Water Supply	Projected Water Supply (Reasonably Available Volume)				
	2020	2025	2030	2035	2040
Purchased or Imported Water	71,770	71,770	71,770	71,770	71,770
Groundwater Production	182,300	182,300	182,300	182,300	182,300
Recycled Water	8,934	10,178	11,423	12,667	13,911
Groundwater Recharge/Montebello Forebay	44,976	47,993	50,000	50,000	50,000
Total	307,980	312,241	315,492	316,937	317,981

Source: CBMWD 2016

Table 3.18-5. CBMWD Projected Demands for Potable and Raw Water (Acre-Feet)

Use Type	Year				
	2020	2025	2030	2035	2040
Sales to other Agencies	64,354	61,560	60,133	57,957	57,661
Groundwater Production	182,300	182,300	182,300	182,300	182,300
Groundwater Recovery	3,995	4,567	5,139	5,711	5,807
Recycled Water	53,910	58,171	61,423	62,667	63,911
Total	304,559	306,598	308,995	308,635	309,679

Source: CBMWD 2016.

City of Los Angeles Department of Water and Power

As noted, LADWP has the largest service area of all of the providers serving the land uses on both sides of the LA River. Nearly 4 million people reside in the LADWP service area, which is slightly larger than the legal boundary of the City of Los Angeles. LADWP provides water service outside the city's boundary to portions of West Hollywood, Culver City, Universal City, and small parts of the County. As the largest municipal utility in the nation, LADWP delivers safe and reliable water service to over 675,000 active service connections. Primary sources of water for the LADWP service area are the LAA, local groundwater, SWP (supplied by MWD), and Colorado River Aqueduct (supplied by MWD).

During the period from 2006 to 2015, as reported in the 2015 Urban Water Management Plan (UWMP), demands have undergone a drastic reduction from a peak of 670,970 AFY in Fiscal Year (FY) 2006/07 because several periods of drought have precipitated increased conservation. The multi-year drought beginning in 2012 caused diminished supplies from the LAA, leading to heavy reliance on purchased MWD water. This drove conservation efforts that resulted in a 22 percent reduction in demand in 2014/15, as compared to 2006/07. Reliance on MWD reached a peak in FY 13/14 as a result of limitations on the LAA supply (LADWP 2015a).

The LAA system, comprising the LAA and the Second LAA, is a water conveyance system, built and operated by LADWP. LAA deliveries reached a record low of 53,500 AF during FY 2014/15. From FY 2010/11 through 2014/15, LAA deliveries supplied an average of 29 percent of the City of Los Angeles's water needs, which is substantially lower than the long-term average. In the last decade, the City of Los Angeles has been required to reallocate approximately 182,000 AFY of LAA water supply to environmental mitigation and enhancement projects, leaving approximately 43 percent of

the supply available for export to the City of Los Angeles. Complying with environmental requirements, coupled with the drought, has led to increased dependence on imported water from MWD.

As a wholesaler, MWD sells water to 26 member agencies in Southern California. LADWP is exclusively a retailer, selling water to individual residents and businesses. LADWP typically purchases MWD water to make up the deficit between demand and the availability of other city supplies. As a percentage of the city's total water supply, purchases from MWD have historically varied from 4 percent in FY 1983/84 to 75 percent in FY 2013/14, with a 5-year average of 57 percent from FY 2010/11 to 2014/15.

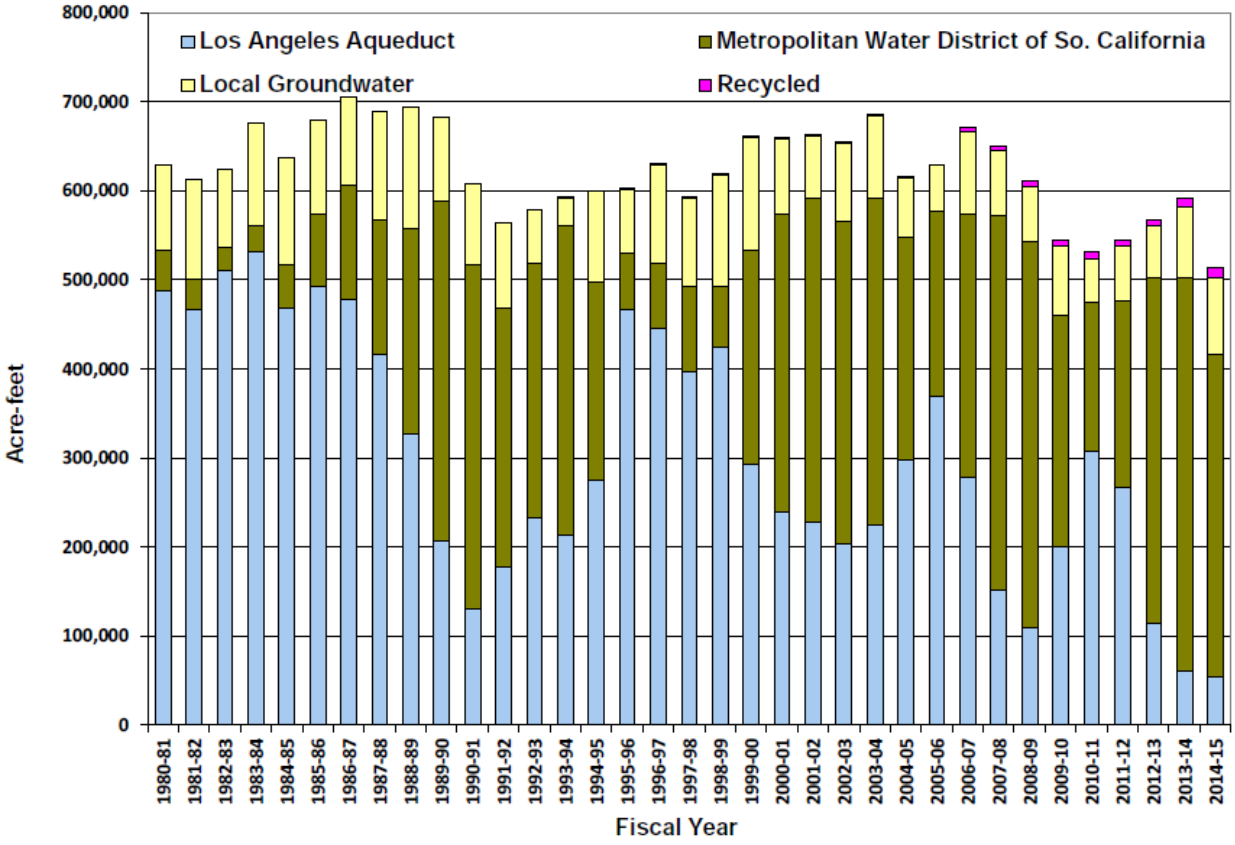
These three sources have historically delivered an adequate and reliable supply to serve the city's needs. Implementation of recycled water projects is expected to fill a larger role in Los Angeles's water supply portfolio. In 1979, LADWP began delivering recycled water to the Los Angeles County Department of Recreation and Parks for irrigation of various areas in Griffith Park. Today, LADWP serves approximately 48 locations in the city with recycled water for irrigation, industrial, and environmental uses. There are approximately 200 customer service accounts. Total recycled water produced for FY 2014/15 was 36,738 AFY. All recycled water used within the city undergoes, at a minimum, tertiary treatment and disinfection. This water is designed to meet the needs of the application and meets or exceeds local and State requirements designed to ensure public safety. Table 3.18-6 summarizes projections for use of recycled water in the LADWP service area through 2040.

Table 3.18-6. Recycled Water Use Projections 2025–2040

Category	Projected Use (AFY)			
	2025	2030	2035	2040
Municipal and Industrial Uses	29,000	39,000	42,200	45,400
Indirect Potable Reuse (Groundwater Replenishment)	30,000	30,000	30,000	30,000
Environmental Use	26,740	26,740	26,740	26,740
Total	85,740	95,740	98,940	102,140

Source: LADWP 2015a.

Section 3.9, *Hydrology and Water Quality*, contains comprehensive information concerning local groundwater sources. Between 2010 and 2015, groundwater has provided approximately 12 percent of the total water supply for Los Angeles, and since 1970 has provided up to 23 percent of supply during extended dry periods. Figure 3.18-3 illustrates the composition of the various sources of water supply between 2006 and 2015.



Source: LAWDP, 2015 UWMP.

Figure 3.18-3. City of Los Angeles Water Supply 1990–2015

The UWMP projects water demand through the year 2040. A summary of the projected net water demand for LADWP's service area through 2040 can be seen in Table 3.18-7.

Table 3.18-7. LADWP Projected Water Demand 2025 to 2040

	Year			
Demand Forecast	**2025**	**2030**	**2035**	**2040**
Total (with Passive Conservation)	644,706 AFY	652,886 AFY	661,848 AFY	675,685 AFY

Source: LADWP 2015a.

With its current water supplies, planned future water conservation, and planned future water supplies, LADWP will be able to reliably provide water to its customers through the 25-year period covered by the 2015 UWMP. LADWP's reliability projections account for water quality issues with source waters and the impacts of climate change on both supplies and demands. To meet targets established in the City of Los Angeles Executive Directive No. 5 (City of Los Angeles 2014a) and the City of Los Angeles Sustainable City pLAn (pLAn) (City of Los Angeles 2019); see Section 3.18.3, *Regulatory Setting*), LADWP will reduce water consumption through conservation, increase recycled water use (including both non-potable and indirect potable reuse), and reduce reliance on imported water from MWD.

City of Long Beach

The Long Beach Water Department (LBWD) provides water service to the entire city through a system of underground pipelines. LBWD provides both potable and reclaimed water. Reclaimed water is wastewater that has been treated to a sufficient degree to be used for specific non-potable uses, such as irrigation. Reclaimed water is conveyed in a separate system to maintain the quality of the potable water. The City of Long Beach has water rights to pump approximately 30,000 AF of groundwater per year out of the Central Groundwater Basin. This amount of groundwater is pumped using groundwater wells located throughout the city and is enough to fulfill around 60 percent of Long Beach's water needs. LBWD obtains its water supply from LBWD-operated wells and imported water from MWD. LBWD satisfies almost 42 percent of its demand by pumping its own wells and about 50 percent by importing water from MWD. The remaining 8 percent of the water supply is tertiary treated reclaimed water from the LACSD Long Beach Water Reclamation Plant (LBWRP) that is used for nondrinking purposes. The LBWRP provides approximately 21 million gallons per day (mgd) of reclaimed water.

City of Compton

The Compton Municipal Water Department provides water service to over 79,000 people through approximately 14,333 service connections, approximately 80 percent of the city. Private water companies provide service to the remaining residents. The system includes eight wells with a total pumping capacity of approximately 10 mgd, one booster pumping station, water treatment facilities, reservoirs with a total capacity of 12 mgd, and more than 156 miles of transmission and distribution water lines. To provide additional supply, Compton Municipal Water Department, as an MWD member agency, has connected to MWD's system with three service connections, and has installed emergency interconnections with adjoining water agencies. A small number of land uses in east Compton are served by Liberty Utilities Company Compton East.

Compton obtains its potable water supply from two sources: directly pumped groundwater and water purchased through MWD. According to the 2010 UWMP (City of Compton 2010), Compton currently has access to 5,780 AF of groundwater that is supplied via seven wells. Water is pumped from these wells, flows into a grid system, and then distributed using a gravity-fed system via 163 miles of 2- to 24-inch-diameter pipes. In addition, MWD supplies approximately 30–60 percent of Compton's water demand. MWD has three active interconnections to Compton. The purchased water from MWD augments the water from the wells, via the distribution system, and flows into four 3-million-gallon welded steel-plate storage tanks, for a total of 12,000 million gallons of storage. Any fluctuations in system pressure or flow deficiencies are taken up by these tanks. The Compton UWMP projects a total demand of 8,061 AF in 2025 and 8,327 AF in 2030. MWD's UWMP includes an additional demand from Compton of 3,177 AF in 2025 and 3,282 AF in 2030. Current projected water supplies for year 2030 total 10,455 AFY (City of Compton 2010).

City of Cudahy

Water supplies for the City of Cudahy are provided by the GSWC (see description below) and Tracts 180 and 349 Mutual Water Company, both of which are non-profit water providers. Neither of the tract water providers is within 1 mile of the LA River and both serve specific residential tracts in the City of Cudahy that are not within the study area.

City of Downey

Downey's water supply sources include groundwater pumped from the local Central Groundwater Basin, supplemental imported water that can be purchased from CBMWD for emergencies in the event that system demands exceed the production capacity of the city's groundwater wells, and recycled water supplies provided by CBMWD. City of Downey Water Services provides water service to an area with a current population of approximately 112,400. Downey's current water service area covers approximately 12.3 square miles encompassing the majority of the city (98 percent). The remaining portions of Downey, which are outside the study area, including the area that lies east of the San Gabriel River, south of Interstate (I-) 5 and north of Cecilia Avenue, are currently served by other water purveyors. The system comprises 60 miles of water mains, 22,500 meter connections, 1,450 fire hydrants, and 3,800 isolation valves. City of Downey's Water Services provides 18,500 AFY of water for domestic, irrigation, and fire protection uses and operates and maintains 20 deep groundwater well sites and three MWD imported water connections. Downey's projected water supplies range from 19,430 AF in 2025 to 20,439 in 2040 (City of Downey 2018).

City of Lynwood

Lynwood is approximately 4.7 square miles in size and its water system serves about 90 percent of the land within city limits (City of Lynwood 2015). The Park Water Company provides water service to the remaining 10 percent in the southeast section of the city. Lynwood's water supply sources consist of imported water from MWD via CBMWD, and groundwater produced from the Central Groundwater Basin. The City of Lynwood's Public Works Department manages the city's infrastructure and natural resources, including the Public Water Utility. The City of Lynwood has five active groundwater wells (Well Nos. 5, 8, 9, 11, and 19) located throughout the city for groundwater production. The wells range in capacity from 550 to 2,000 gallons per minute (gpm) with a total pumping capacity of 5,650 gpm. The City of Lynwood completed equipping of its Well No. 22 (capacity of 2,500 gpm) in 2015.

Lynwood also receives imported water from its connection to CBMWD, with a 12-cubic-foot-per-second connection capacity of 5,376 gpm. Although the City of Lynwood previously used its imported connection to supplement its groundwater supply, the City of Lynwood has recently decided to use imported water only on an as-needed basis. Groundwater has accounted for the majority of Lynwood's water supply, providing about 90 percent of the total water supply. The City of Lynwood distributes its water to approximately 9,000 service customers through a 90-mile network of distribution mains with pipeline sizes ranging from 4 inches to 16 inches.

The City of Lynwood owns rights to extract 5,337 AF of groundwater annually. Due to a lease from another pumper in the region, the City of Lynwood currently maintains an allowable pumping allocation of 6,037 AFY. Although the City of Lynwood does not currently have the capability to construct a wastewater recycling facility within its limits, it currently benefits from the use of recycled water in the CBMWD region, including the use of recycled water at Burke-Ham Park and by the California Department of Transportation along I-105 and I-710 in the city. Projected water demand for the city ranges from 6,639 AF in 2025 to 6,965 AF in 2035.

City of Paramount

Paramount occupies an area of approximately 4.8 square miles (2,800 acres). Paramount has three water sources: groundwater, imported water (surface), and recycled water. The City of Paramount

also has emergency mutual-aid domestic water connections with the City of Long Beach, the City of Downey, and GSWC. Currently, two water utilities serve the community: GSWC and the City of Paramount's Water Division (City of Paramount 2020). The City of Paramount's Water Division services the majority of the population. Two northern portions of the city, above I-105, are serviced by Southern California Water Company. Paramount utilizes both potable and recycled water. Paramount obtains potable water from two sources: directly pumped groundwater and imported water purchased through CBMWD, which in turn receives the water through MWD. In addition to distributing potable water, the City of Paramount also has a recycled water system that provided 338 AF of recycled water in 2015. The City of Paramount provided a total of 6,396 AF of water to a population of approximately 55,302 in 2015.

Paramount's current water system includes three wells; two imported water connections; approximately 130 miles of water transmission and distribution mains; and appurtenant valves, hydrants, and equipment. Currently, the City of Paramount does not have any storage reservoirs, although the groundwater basin acts as ground storage for the city. Paramount was allocated an annual pumping right for the Central Groundwater Basin, which currently stands at 5,883 AFY plus 20 percent carryover rights. Well No. 13, Well No. 14, and Well No. 15 are the City of Paramount's three existing groundwater wells, with a pumping capacity of 10,368,000 gallons per day. Projected total water demands range from 7,562 AF in 2020 to 8,080 in 2035 (no projections available for 2040). The sources of water are expected to remain substantially similar between 2020 and 2035, totaling 7,912 AF in 2020 to 7,938 AF from all sources (City of Paramount 2015).

City of South Gate

The City of South Gate Water Division is responsible for the maintenance and operation of the city's water system and services over 16,500 connections to most of South Gate (City of South Gate 2020). Water production for South Gate is equal to the groundwater withdrawn by city wells plus any imported water purchased from MWD and interconnections with adjacent cities. Currently, South Gate's potable water demand is met by seven active wells and approximately 124 miles of distribution pipeline. The system also includes two ground-level tanks with a capacity of 2.5 million gallons each and two with a capacity of 1.66 million gallons each, as well as the Hawkins Reservoir Pumping Plant, including four booster pumps that can provide 2,800 gpm each (City of South Gate 2015). Since 2015, the City of South Gate has been pursuing an aggressive capital improvement program estimated at $13 million. The facilities under construction include drilling of new Well No. 29 at the intersection of Santa Fe Avenue and Ardmore Avenue, constructing a new 1.8-million-gallon reservoir at Well No. 28 site, and installing approximately 5,100 feet of new 8- to 12-inch ductile water mains in Ardmore Avenue and San Luis Avenue to replace aging cast iron mains.

Cities of Bell and Bell Gardens

GSWC obtains water from CBMWD for the Bell and Bell Gardens water system. Water purchased from CBMWD is delivered to the Bell and Bell Gardens system through MWD's CB-3 connection, which has a design capacity of 3,366 gpm (5,432 AFY). Between 2011 and 2015, purchased water quantities ranged from 8 AF to 155 AF. The Bell and Bell Gardens system is supplied by five active GSWC-owned wells in the Central Subbasin of the Coastal Plain of Los Angeles County Groundwater Basin. A sixth well is currently offline. Existing well capacity is 11,220 AFY.

Demand for water for all land use types was 4,631 AF in 2015. Demands for water, including recycled water, are projected to range from 5,674 AF in 2020 to 5,878 AF in 2040. GSWC's water

supply is projected to increase by approximately 23 percent from 2015 to 2040 to meet projected water demands, which will be met by groundwater, the expected implementation of conjunctive use groundwater storage programs, and imported water. Projected water supplies match the projected water demands described in the 2015 UWMP (GSWC 2015).

For 2015, imported water made up less than 1 percent of the available supply, whereas approximately 97 percent of the supply was from GSWC groundwater pumping and 2 percent was provided by recycled water sources. In future years, the imported water supply may be as great as 20 percent or higher depending on groundwater allocations, the availability to lease additional groundwater rights, and groundwater quality considerations. Therefore, GSWC is actively pursuing the availability of a reliable, cost-effective supply of imported water through the implementation of conjunctive use storage programs in the Central Groundwater Basin. Storage programs could utilize water purchased from CBMWD or water purchased from other suppliers. GSWC's supply is expected to be highly reliable through 2040. This reliability is a result of adjudicated groundwater rights, the availability of leased groundwater, benefits of conjunctive use storage, water supplies available from supplemental suppliers, conservation-derived supply, and availability of recycled water (GSWC 2015).

City of Huntington Park

The City of Huntington Park Water-Sewer Division is responsible for providing potable water to approximately 6,600 service connections. Huntington Park is served by four water companies that obtain their supply of water from two sources: groundwater from local wells and water supplied by MWD. The water companies include Maywood Mutual Water Company, serving the northeastern portion of the city; Walnut Park Mutual Water Company, serving the odd-numbered side of Walnut Street; GSWC, serving the western portion of the city; and Severn Trent Services, the city's main provider of water, operating multiple wells in Huntington Park, including well numbers 12, 14, and 17. Historical data indicate the Main Basin and Central Groundwater Basin have been well managed for the full period of the adjudications, resulting in a stable and reliable water supply. There are no contemplated basin management changes, other than increasing direct use of recycled water and the planned use of recycled water for groundwater replenishment in the Main Basin to reduce the need to import water from other regions. Therefore, the groundwater supplies are deemed reliable (City of Huntington Park 2017). The City of Huntington Park has no UWMP to provide information on projected supplies and demands.

City of Vernon

The City of Vernon is a member agency of CBMWD and purchases imported water as needed. The City of Vernon draws its groundwater supply from the Central Groundwater Basin. This source annually supplies approximately 200,000 AF of potable water to the area south of the Whittier Narrows to the Pacific Ocean and from the Orange County line to the City of Compton. The City of Vernon has an Allowable Pumping Allocation from the Central Groundwater Basin of 7,539 AFY.

Most of the geographical area of Vernon is supplied by the City of Vernon's Water Department. The California Water Service Company (East Los Angeles District, Commerce System) serves some of the northeastern portion of the city, and a small portion of southeastern Vernon is serviced by the Maywood Mutual Water Company No. 3. The City of Vernon has no surface water supply and does not divert stormwater for capture purposes. The City of Vernon estimates an average year supply and demand of 10,860 AFY between years 2020 and 2040 and the estimated sources of supply are

equal to the demand, with no surplus. Most of the supply will come from Central Groundwater Basin rights (7,539 AFY), with contributions from groundwater leases, stored water, replenished water, and imported water. The City of Vernon expects the supply and demand to remain relatively stable even across multiple dry years (City of Vernon 2016).

City of Glendale

Glendale spans over 31 square miles and is home to nearly 200,000 people. Glendale's potable and recycled water service area closely coincides with the city boundary, bordered by the City of Los Angeles to the north and south and the City of Burbank to the west. On the eastern side, Glendale's service area is bounded by Crescenta Valley Water District, La Cañada Irrigation District, Valley Water Company, and the City of Pasadena. A portion of the northern side of the Glendale boundary is served by both the City of Glendale and Crescenta Valley Water District. Only the City of Glendale supplies water to the land uses 1 mile on either side of the LA River.

Currently, the potable water facilities that provide service to meet existing demands within Glendale's service area includes three MWD imported water connections, 14 active wells, 28 water storage reservoirs and tanks, 26 booster pumping stations, six pressure-reducing stations, and approximately 380 miles of pipeline. Additionally, the City of Glendale owns and operates two water treatment plants that remove contaminants from local groundwater.

Imported water from MWD accounts for the majority of Glendale's potable supplies at about 69 percent of the total supplies between 2005 and 2014. The City of Glendale's Tier 1 limit from MWD is approximately 26,222 AFY. In 2015, the City of Glendale purchased approximately 14,726 AF of water from MWD. The City of Glendale's potable water distribution system delivers water from three imported water connections: MWD G-1, MWD G-2, and MWD G-3.

Glendale receives groundwater from 14 groundwater wells that pump water from the Verdugo and San Fernando Basins. Groundwater wells in the Verdugo Basin include the Foothill Well, Glorietta Wells, and Verdugo Wells. Groundwater wells in the San Fernando Basin include the Glendale North Operable Unit Wells and Glendale South Operable Unit Wells. The City of Glendale's well capacity is approximately 7,400 gpm. The total storage capacity of the San Fernando Basin is calculated at 3.67 million AF, while the storage capacity of the Verdugo Basin is approximately 160,000 AF. The City of Glendale has rights to extract 3,867 AFY and has been actively trying to identify possible new water well sites to increase its groundwater production capacity from this basin.

In 2014, approximately 5 percent and 23 percent of Glendale's supply was obtained from the Verdugo Basin and San Fernando Basin, respectively. Despite reduced production in the Verdugo Basin due to ongoing drought conditions, the City of Glendale was able to meet demands as a member agency of MWD due to MWD's investments in dry-year storage facilities and capacity.

The City of Glendale is entitled to 50 percent of the effluent from the Los Angeles – Glendale Water Reclamation Plant (LAGWRP), which is a 20-mgd facility co-owned by the City of Glendale and the City of Los Angeles. Its current level of treatment is Title 22 (tertiary) with nitrogen removal (NDN). Recycled water from LAGWRP is used for landscape irrigation to cemeteries, schools, parks, and high rises, and for dual plumbing in several buildings and facilities. In 2014, the City of Glendale served recycled water to 75 service connections with a combined demand of nearly 1,721 AF or near 1.5 mgd. Glendale's existing recycled water system consists of approximately 22 miles of purple pipe, five storage facilities, and six pump stations. Glendale has a 100-year water supply for all existing and planned developments within its water service area and is capable of building the

necessary distribution and treatment facilities to deliver high-quality water to a growing community (City of Glendale 2018).

Projected water supply from all sources totals 39,540 AF for all 5-year increments from 2020 to 2040.

Projected water demand for Glendale through year 2040 is summarized in Table 3.18-8.

Table 3.18-8. Projected Water Demand (City of Glendale) – Acre-Feet

Sector	2020	2025	2030	2035	2040
Water Service Area Population	199,606	202,574	205,586	208,643	211,745
Demands					
Single-Family Residential	11,555	11,727	11,901	12,078	12,257
Multi-Family Residential	10,991	11,155	11,320	11,489	11,660
Commercial/Institutional	4,227	4,290	4,354	4,419	4,484
Industrial	705	715	726	736	747
Landscape Irrigation	648	658	668	678	688
Other	56	57	58	59	60
Total	**28,182**	**28,601**	**29,027**	**29,458**	**29,896**

Source: City of Glendale 2016.

City of Burbank

The City of Burbank does not own any native groundwater rights and extracts groundwater supplies under terms outlined in the 1979 water rights Judgment for the San Fernando Basin. Burbank Water and Power (BWP) provides potable and recycled water to customers within the city. BWP's potable water system includes approximately 286 miles of pipelines ranging in size from 30 inches to 1.5 inches in diameter, 35 booster pumps, 21 tanks and reservoirs, eight wells, five MWD connections, and over 26,000 service connections. The water distribution system consists of three major pressure zones and eight smaller hillside zones. The three largest pressure zones are denoted Zones 1, 2, and 3. Zone 1 encompasses approximately 90 percent of the total Burbank land area and represents 88 percent of the total city demand.

The potable system's tanks and reservoirs range in capacity from 13,500 gallons to 25 million gallons. The combined storage capability of all the reservoirs is approximately 60 million gallons. The storage capacity of Zone 1 is approximately 50 million gallons, 83 percent of the total system storage.

The annual potable water sales for 2011 through 2015 averaged 5,650 million gallons or 17,339 AF. Over the same 5 years, the average water demand was 15.9 mgd. Annual maximum day demands averaged 21.9 mgd. The pump station at the Burbank Water Reclamation Plant (BWRP) distributes reclaimed water to users around Burbank. Of the 330 million gallons of reclaimed water distributed in 2019, 50 percent was used for the cooling tower at the BWP steam power plant, 30 percent was used at Debell golf course, 10 percent was used at the City of Burbank Landfill, and 10 percent went to other uses.

Future water demands are summarized in Table 3.18-9. Table 3.18-10 summarizes the total MWD demand for the period from 2020 to 2040.

Table 3.18-9. Projected Water Demands (City of Burbank) – Acre-Feet

	Year				
Water Use Sector	**2020**	**2025**	**2030**	**2035**	**2040**
Single-Family Residential	8,481	8,061	7,817	7,543	7,412
Multi-Family Residential	5,011	4,924	4,8905	4,629	4,640
Commercial/Industrial/Institutional/ Governmental	4,930	4,938	4,939	4,884	4,818
Total	18,422	17,923	17,561	17,056	16,870

Source: BWP 2015.

Table 3.18-10. Projected MWD Demands (City of Burbank) – Acre-Feet

	Year				
Wholesaler	**2020**	**2025**	**2030**	**2035**	**2040**
MWD Treated Potable	7,894	7,383	7,011	6,493	6,303
MWD Untreated Groundwater Replenishment	6,300	4,700	4,800	4,900	4,900
Total	14,194	12,083	11,811	11,393	11,203

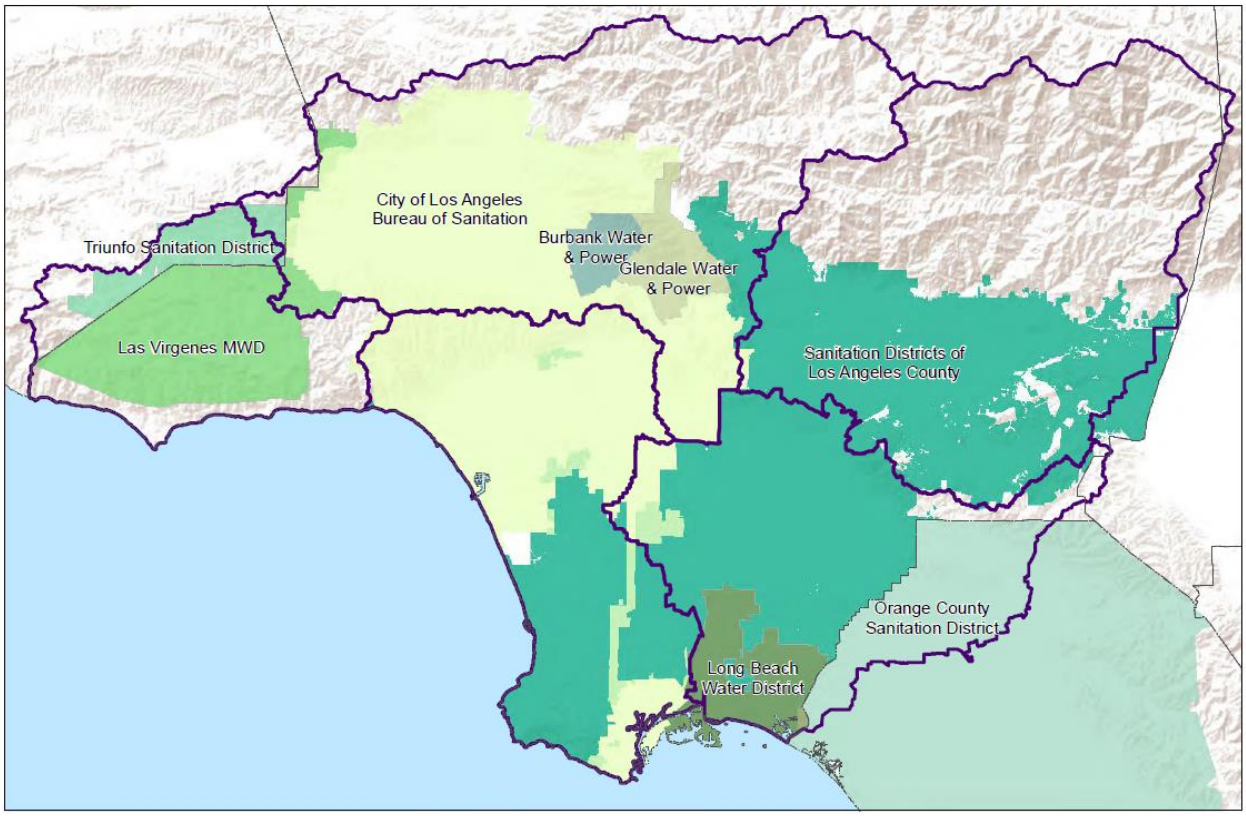
Source: BWP 2015.

3.18.2.2 Sewers and Wastewater Treatment

The Los Angeles County Sanitary Sewer Network covers approximately 824 square miles and encompasses 78 cities and unincorporated territory within the County. There are approximately 9,500 miles of tributary sewers that are owned and operated by the cities and County. The tributary sewers discharge into the LACSD, City of Los Angeles, and Las Virgenes Municipal Water Districts collection system for treatment. Most sewers are designed so that gravity alone carries wastewater to the treatment plants. Low-lying areas such as some beach communities or valley locations need pump stations to push wastewater uphill through pipes that are under pressure (force main sewers) so that the sewage can reach a gravity sewer.

The proposed project area is served by five different sanitation districts: City of Los Angeles Bureau of Sanitation (LASAN), BWP, Glendale Water and Power (GWP), LACSD, and LBWD. Figure 3.18-4 illustrates the boundaries of these districts.

Public Works maintains four wastewater treatment plants, none of which is in the proposed project area.



Source: LASAN 2019

Figure 3.18-4. Southern California Sanitation Districts

County of Los Angeles Sanitation Districts

LACSD is a public agency focused on converting waste into resources like recycled water, energy and recycled materials (LACSD 2020). The agency consists of 24 independent special districts serving about 5.6 million people in the County. The agency operates and maintains the regional wastewater collection system, which includes approximately 1,400 miles of sewers, 49 pumping plants, and 11 wastewater treatment plants that transport and treat about half the wastewater in the County. Collectively, the independent sanitation districts treat about 400 mgd. LACSD operates and maintains the treatment facilities and the larger, regional collection systems. Cities and unincorporated County areas within each district are responsible for their smaller collection systems. LACSD also owns and operates a regional wastewater biosolids composting facility and co-owns a second similar facility.

Los Angeles Bureau of Sanitation

LASAN operates more than 6,700 miles of public sewers that convey about 400 mgd of flow from residences and businesses to the City of Los Angeles's four wastewater treatment and water reclamation plants. Together, they have a combined capacity of 580 mgd of recycled water (LASAN 2020a). LASAN maintains four collection systems: Hyperion System, Terminal Island System, Donald C. Tillman, and Los Angeles-Glendale. The collection systems owned and operated by the City of Los Angeles convey wastewater via approximately 6,439 miles of gravity mains, 33 miles of force mains, and 46 pumping plants. Currently, an average wastewater flow rate of approximately 272 mgd is

generated in the system. The collection systems also convey the flows of 29 satellite agencies to plants for treatment. Table 3.18-11 summarizes the collection systems in the city.

Table 3.18-11. Summary of City of Los Angeles Wastewater Collection System

Collection System	Gravity Mains (miles)	Force Mains (miles)	Wastewater Conveyed (mgd)	Treatment Facility
Hyperion	6,043	20	260	Hyperion
Terminal Island	295	12	12	Terminal Island
Regional	101	1	0.26	LACSD's Joint Water Pollution Control Plant
Unified System	6,439	33	272	

Source: LASAN 2020a.

There are 29 contributing jurisdictions (eight cities and 21 agencies) that discharge wastewater into the City of Los Angeles's Publicly Owned Treatment Works. LASAN has sewage disposal contracts with all contributing jurisdictions, including the Cities of Burbank and Glendale,

Through hydraulic condition assessment, population forecast, and modeling, the City of Los Angeles identifies the current capacity needs, predicts future requirements, and develops capital improvement projects to address them. When the peak flow in a sewer reaches a predetermined level, it triggers a planning study that is initiated in time to ensure that additional capacity is provided to meet future demands before the sewer d/D (ratio of flow depth to pipe diameter) reaches 0.75 in conformance with the City of Los Angeles's Sewer Design Manual criteria.

The City of Los Angeles has few capacity enhancement measures in the capital planning process as the result of past efforts and reduced flows. All of the projects identified from the 2008 planning effort are complete. Efforts are still underway to relieve flows on the North Outfall Sewer. The San Fernando Relief Sewer is in the conceptual planning stage and moving toward the design phase. Some previously borderline capacity issues are moving toward becoming capacity constraints due to increased development. Per the 2019 Sewer System Management Plan (SSMP), since 2013/2014 the City of Los Angeles has received 500 to 600 new capacity requests for wastewater collection, conveyance, treatment, disposal, reclamation, and reuse projects due to new construction. This is up from approximately 100 capacity requests (LASAN 2020b).

In addition to wastewater collection systems, LASAN operates the Donald C. Tillman Water Reclamation Plant in Van Nuys. Its facilities were designed to treat 40 million gallons of wastewater per day and serve the area between Chatsworth and Van Nuys in the San Fernando Valley. LAGWRP serves East San Fernando Valley communities that are both within and outside of the Los Angeles city limits. The plant's highly treated wastewater meets and exceeds the water quality standards for recycled water for irrigation and industrial processes. This water reuse conserves over 1 billion gallons of potable water per year.

Burbank Water and Power

The City of Burbank Public Works Department owns and operates the city's sanitary sewer system and the BWRP (BWP 2019). Wastewater flows to the BWRP, which currently treats 8.5 mgd with a design capacity of 12.5 mgd. The BWRP is a tertiary wastewater treatment plant that currently treats 9 mgd. The BWRP was built in 1966 to meet the wastewater and sewer needs of the growing

residential population and expanding commercial industries in Burbank. Before the BWRP was built, the City of Burbank sent all of its wastewater to the City of Los Angeles for treatment and disposal.

Originally built to treat 6 mgd, the BWRP was upgraded by the City of Burbank to the current 9 mgd in 1971. The plant was again upgraded in 2000 to ensure that it meets new stringent regulations raising the quality of the cleaned wastewater it discharges after the treatment process. The plant was upgraded again in 2002 to remove ammonia from the wastewater. Nonrecycled water is discharged into the Burbank Western Channel, flowing to the LA River and eventually the Pacific Ocean.

A Pretreatment Program requires that all users in Burbank that generate wastewater other than domestic sewage obtain an Industrial Waste Discharge Permit or other control mechanism (BMC Title 8, Chapter 1, Section 503).

Glendale Water and Power

The City of Glendale Public Works Department provides sewer collection and treatment services in the City of Glendale (City of Glendale 2016). Sewage from the City of Glendale and other jurisdictions is treated by the City of Los Angeles Hyperion System, which includes the LAGWRP, outside the Glendale city limits in Los Angeles, and the Hyperion Treatment Plant, in Playa del Rey. The City of Glendale and the City of Los Angeles jointly own and share operating capacity of the LAGWRP. The City of Glendale entered into an amalgamated treatment and disposal agreement with the City of Los Angeles, which eliminates entitlements and reduces limitations on the amount of sewage discharged into the Hyperion system. Any Glendale sewage not treated at the LAGWRP is treated at the Hyperion Treatment Plant.

Long Beach Water Department

LBWD has been responsible for managing the city's sewer system since 1988 (City of Long Beach 2016). The City of Long Beach owns, operates, and maintains the sanitary sewer system that carries water from toilets, showers, sinks, and dish and clothes washers away from homes and businesses. LBWD operates and maintains over 700 miles of sanitary sewer lines, safely collecting and delivering over 40 mgd to the LACSD for treatment.

The LBWRP is on the east side of Long Beach. The plant is owned and operated by LACSD. The LBWRP provides primary, secondary, and tertiary treatment for up to 25 mgd. The plant serves a population of approximately 250,000 people.

Almost 6 mgd of the recycled water is used at over 60 sites. Reuses include landscape irrigation of schools, golf courses, parks, and greenbelts by the City of Long Beach; the re-pressurization of oil-bearing strata off the coast of Long Beach; and the replenishment of the Central Groundwater Basin supply from water processed at the Leo J. Vander Lans Advanced Water Treatment Facility. The remainder is discharged to Coyote Creek. The advanced water treatment facility uses microfiltration, reverse osmosis, and ultraviolet disinfection to produce near distilled quality water, which is blended with imported water and pumped into the Alamitos Seawater Barrier to protect the groundwater basin from seawater intrusion.

Other Jurisdictions

Other jurisdictions in the study area have various wastewater collection systems. Table 3.18-12 summarizes these systems.

Table 3.18-12. Other Jurisdictions' Wastewater Treatment

City	Frame	Description
Compton	2, 3	Served by LACSD No. 2 and maintained by Public Works
Carson	2	The City of Carson owns the local sanitary sewers within Carson. Public Works' Consolidated Sewer Maintenance District maintains these sewer lines. The Consolidated Sewer Maintenance District collects user fees for operation and maintenance of existing local sewer lines. The trunk lines and treatment plant within the city are owned and operated by LACSD. Wastewater generated within Carson is treated at the Joint Water Pollution Control Plant.
Cudahy	2	The sewer system is managed by the City of Cudahy's Public Works Department. The local sewage is discharged into a larger system (County of Los Angeles Consolidated Sewer Maintenance District) managed by LACSD, which provides both primary and secondary treatment of all Cudahy sewage flows while Cudahy Public Works maintains all City of Cudahy-owned collection systems. LACSD serves 78 cities and unincorporated territory within Los Angeles County and provides sewage treatment at ten water reclamation plants and one ocean discharge facility (the Joint Water Pollution Control Plant).
Downey	3	City of Downey Public Works Department, Utilities Division, operates and maintains 193 miles of sanitary sewers, two sewer lift stations, and 4,250 manholes.
Lynwood	3	City of Lynwood Department of Public Works
Paramount	3	LACSD
South Gate	3	South Gate's sanitary sewer collection system is managed by the South Gate Public Works Department. The collection system consists of about 119.4 miles of gravity sewer lines, no pump/lift stations, and about 100 sewer siphons within the system. Approximately 99 percent of local wastewater flows discharge into LACSD facilities for transportation, treatment, and disposal. The remaining 1 percent of total sewage generated within the city passes into the Paramount system and is then discharged into LACSD facilities.
Bell	4	The physical sewer collection infrastructure is owned by the City of Bell and contains 37 miles of gravity sewer main, 23 miles of laterals, and over 8,600 lateral connections.
Bell Gardens	4	Public Works (sewer maintenance)
Commerce	4	City of Commerce Department of Public Works - Public Works/Engineering Services Division
Huntington Park	4	Huntington Park Water Sewer Division maintains the city's sewer system and provides support to mainline sewer back-ups.
Maywood	4	City of Maywood Engineering Division
Vernon	4	The City of Vernon owns its own sewage collection system, which discharges into the system managed by LACSD. The majority of Vernon is within District 23, but also contains territory in Districts 1 and 2. These districts, along with more than a dozen others, are signatories to the Joint Outfall System, which

City	Frame	Description
		provides for the operation and maintenance of an interconnected system of wastewater collection, treatment, reuse, and disposal facilities across a large portion of the urban region.

3.18.2.3 Stormwater

Stormwater in the study area is managed by the Los Angeles County Flood Control District (LACFCD). The district encompasses more than 2,700 square miles and approximately 2.1 million land parcels within six major watersheds. It includes drainage infrastructure within 86 incorporated cities as well as unincorporated County areas. This includes 14 major dams and reservoirs, 483 miles of open channel, 27 spreading grounds, 3,330 miles of underground storm drains, 47 pump plants, 172 debris basins, 27 sediment placement sites, three seawater intrusion barriers, and an estimated 82,000 catch basins. Public Works estimates that roughly 25 billion gallons of stormwater—or about 77,000 AF—drains annually into the ocean from the LA River watershed.

Historically, urban development and storm drain system design have consisted of streets, driveways, sidewalks, and structures constructed out of impervious materials that directly convey runoff to curb and gutter systems, the storm drain system, and downstream receiving waters. Until recently, conventional storm drainage and flood management systems have been designed to convey stormwater away from developed areas as quickly as possible without thoroughly addressing stormwater quality and/or groundwater discharge. As of January 2009, the County has promulgated standards to address these issues. Current County Low-Impact Development (LID) standards for stormwater management require limiting storm runoff from redeveloped sites to the pre-development condition. The LID manual establishes best management practices for infiltration, evapotranspiration, storage and reuse, and high-efficiency bio-filtration/retention systems to be incorporated into development sites. To the extent it is technically feasible, a developed site is required to capture, infiltrate, or reuse the difference in volume generated during a 0.75-inch storm event on the developed site versus that generated by the same event on the site in an undeveloped condition. In addition, a developed site may be required to prevent pollutants from leaving the site for a water quality design storm event unless it has been treated through an on-site, high removal efficiency biofiltration/biotreatment system.

3.18.2.4 Solid Waste

Regional Administration

In the 1950s, LACSD was given responsibility for solid waste management (excluding trash pickup). The agency's solid waste management system currently provides about one-fourth of the countywide solid waste disposal needs through the operation of two sanitary landfills, three materials recovery/transfer facilities, and a refuse-to-energy facility. LACSD also has two facilities that convert landfill gas into renewable energy. LACSD's solid waste system includes one recycling center. The agency also maintains four closed landfills. This system accommodates about one-fourth of the County's solid waste management needs.

Local Jurisdiction Solid Waste Administration

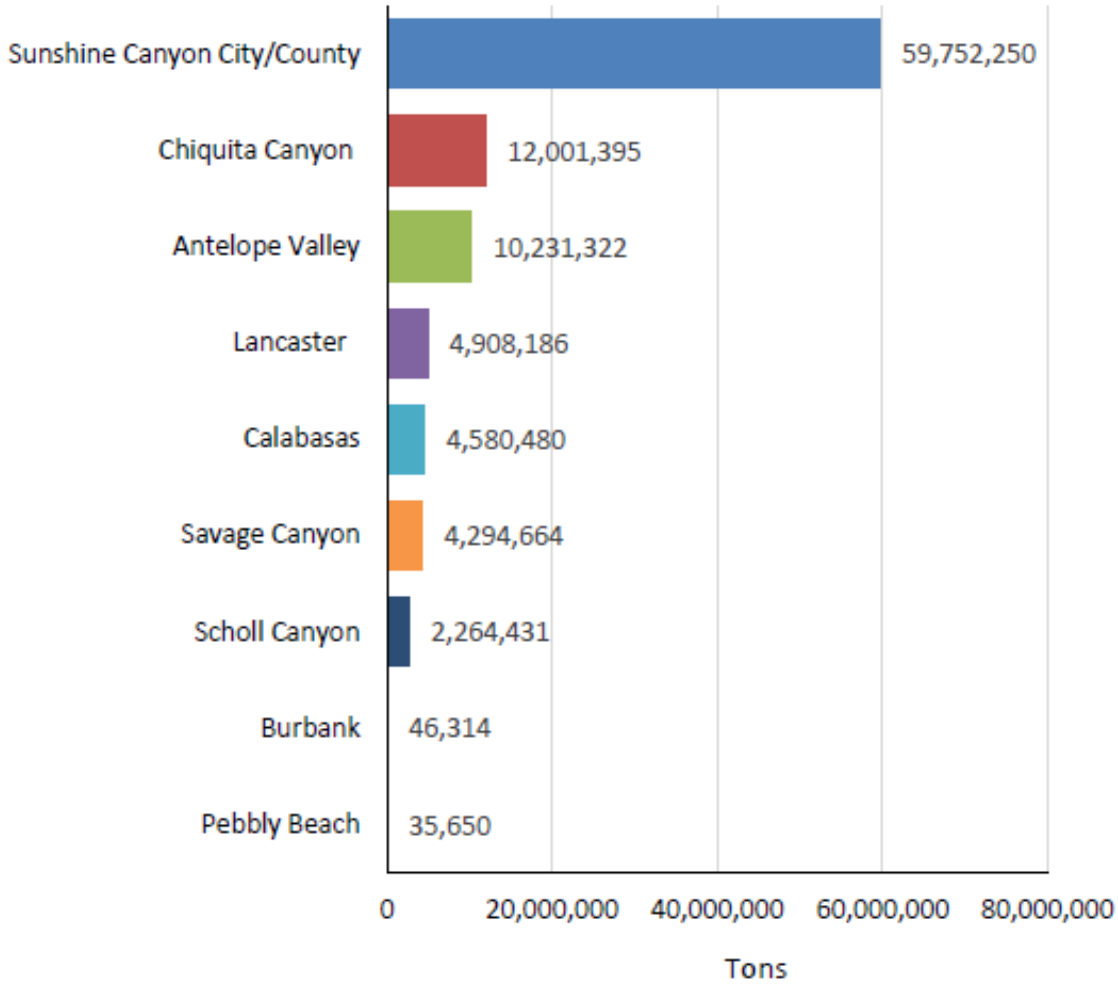
Table 3.18-13 summarizes the miscellaneous entities that handle solid waste collection in the cities along the LA River.

Table 3.18-13. Local Solid Waste Collection Services

City	Frame	Entity
Los Angeles	1, 5, 6, 7, 8, 9	LASAN
Long Beach	1, 2	City of Long Beach Public Works Environmental Services Bureau
Compton	2, 3	Waste Resources
Carson	2	Republic Services
Cudahy	2	Republic Services
Downey	3	CalMet Services
Lynwood	3	City of Lynwood Department of Public Works
Paramount	3	CalMet Services
South Gate	3	Consolidated Disposal Service
Bell	4	Consolidated Disposal Service
Bell Gardens	4	Consolidated Disposal Service
Commerce	4	Athens Services (residential), AAA Rubbish, CalMet Services, Universal Waste, Haul-A-Way, Waste Management, United Pacific Waste, Republic Services (commercial)
Huntington Park	4	CR&R Environmental Services
Maywood	4	Universal Waste Systems
Vernon	4	City of Vernon Public Utilities Department
Glendale	6	City of Glendale Integrated Waste Management Division
Burbank	7	City of Burbank Department of Public Works - Solid Waste

Landfills

Solid waste generated by facilities in the study area is collected by franchise waste haulers for eventual diversion or disposal. Remaining disposal capacity at these landfills as of 2018 is illustrated on Figure 3.18-5.



Source: Public Works 2019.

Figure 3.18-5. Available Disposal Capacity (2018)

Landfills are categorized as one of three classes:

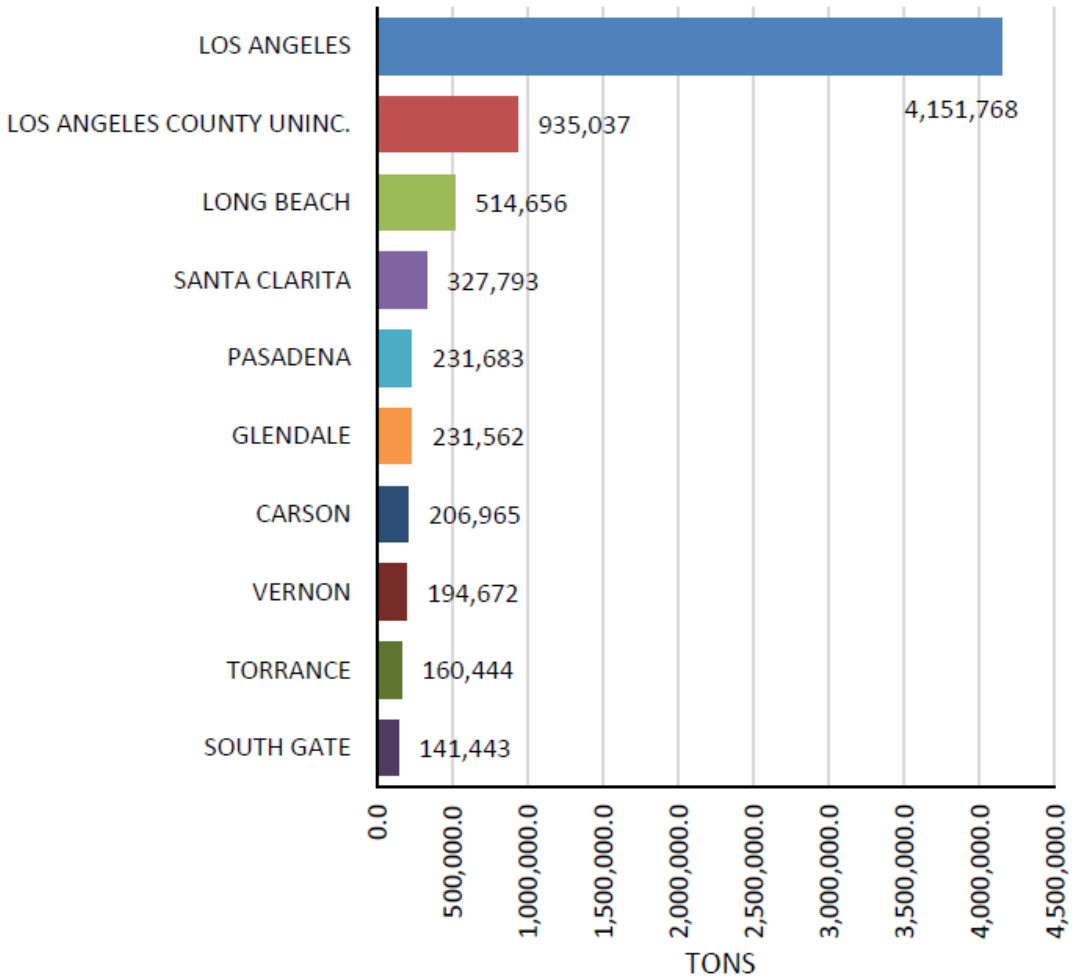
- Class I landfills accept hazardous and non-hazardous wastes.
- Class II landfills accept non-hazardous and "designated" wastes, as defined by the California Department of Resources Recycling and Recovery (CalRecycle).
- Class III landfills accept municipal and other non-hazardous, household waste.

Unclassified landfills are defined as facilities that accept inert materials only, such as soil, concrete, asphalt, and other construction and demolition (C&D) debris. Non-hazardous municipal solid waste is disposed in Class III landfills.

Hazardous waste is disposed of at designated Class I facilities. The State of California currently operates three designated Class I landfills: the Buttonwillow Hazardous Waste Facility in Kern County, the Kettleman Hills Hazardous Waste Facility in Kings County, and the Imperial (Westmorland) Hazardous Waste Facility in Imperial County. The Buttonwillow facility is 320 acres and operates a permitted drum handling and storage area that can store up to 1,500 drums (Clean

Harbors 2020a). Their current constructed landfill capacity is 950,000 cubic yards whereas the permitted landfill capacity is 10 million cubic yards (Clean Harbors 2020a). The Imperial facility is 640 acres, with a drum capacity of 1,000 drums (50,000 gallons) and a bulk storage capacity of 195 cubic yards (Clean Harbors 2020b). The Kettleman Hills facility is a 1,600-acre property that is permitted to receive a maximum of 2,000 tons per day (TPD) of municipal solid waste, but typically receives an average of about 1,350 TPD (Waste Management 2014).

In 2018, the total amount of solid waste (including an import amount of 166,711 tons) disposed of at in-county Class III landfills, transformation facilities, and out-of-county landfills was approximately 10.7 million tons. In addition, the amount of inert waste disposed at the permitted inert waste landfill totaled 358,254 tons (Los Angeles County 2019). For the purpose of long-term disposal capacity planning, a countywide diversion rate of 65 percent was assumed for 2018. Based on a total disposal of 10.5 million tons (excluding inert waste and imports) and the 65-percent diversion rate, the County generated approximately 29.95 million tons or an average of 96,000 TPD. In addition to waste generated within the County, Class III landfills and transformation facilities in the County also received 175,737 tons, or 563 TPD, of waste from jurisdictions outside the County in 2018. Figure 3.18-6 illustrates the top ten producers of solid waste in Los Angeles County.



Source: Public Works 2019

Figure 3.18-6. Top 10 Producers of Solid Waste (2018)

When waste is received at Class III landfills and transformation facilities, some of it is used on site, such as for Alternative Daily Cover, and some is sent off site for recycling or processing. The remaining waste is landfilled or transformed into energy. If transformed, the residual ash is turned into ashcrete and used as road base for winter deck operating areas and other beneficial uses.

Public Works conducted a survey requesting landfill operators in the County to provide updates of their estimated remaining disposal capacities. Based on the results of the survey and considering permit restrictions, the total remaining permitted Class III landfill capacity in the County is estimated at 163.39 million tons.

Within Los Angeles County, there are 42 permitted large volume transfer/processing and direct transfer facilities, which can receive 100 TPD or more, and numerous facilities of smaller volume (Public Works 2019). A transfer station/processing facility refers to a facility that receives, handles, separates, converts, or otherwise processes solid waste. There are three types of facilities that are recognized as transfer/processing facilities in this report: transfer stations, material recovery facilities, and C&D and inert debris processing facilities. Transfer stations typically transfer solid waste directly from one container to another or from one vehicle to another for transport, or temporarily store solid waste prior to final disposal at permitted landfills or transformation facilities. Material recovery facilities refer to intermediate processing facilities designed to remove recyclables and other valuable materials from the waste stream. A C&D and inert debris processing facility refers to a site that receives any combination of C&D debris, and Type A6 inert debris per operating day for the purposes of storage, handling, transferring, or processing.

In addition to the 42 facilities discussed above, there are 13 large volume transfer/processing facilities in the County that fall under the umbrella of clean material recovery facilities. A clean material recovery facility is one that separates materials from commingled recyclables, typically collected from residential or commercial curbside programs. As local waste disposal capacity options diminish in the County, transfer and processing facility operators are expected to export waste to out-of-county landfills via truck or rail transport.

The County has 22 operational composting/chipping and grinding facilities that are permitted to receive 6 TPD or more, and numerous composting/chipping and grinding facilities of smaller volume. A composting facility refers to a facility that processes organic materials such as green waste, manure, food waste, and other organics. The organics are transformed through controlled biological decomposition and sold as an end product, usually in the form of home or farm soil amendments. A chipping and grinding facility refers to a facility that separates, grades, and resizes woody green waste or used lumber to be sent to a composting facility, used at a landfill for Alternative Daily Cover, or sent to miscellaneous end markets such as feedstock at biomass to energy plants. Currently there are two anaerobic digestion facilities operating within the County. An anaerobic digestion facility refers to a facility that biologically decomposes organic matter with little or no oxygen in a fully enclosed structure (in-vessel digestion) to produce biogas, liquid fertilizer, and compost.

Based on the 2018 Annual Report, a shortfall in disposal capacity is not expected to occur in this scenario during the planning period (2018–2033) (Public Works 2019).

3.18.2.5 Natural Gas

Southern California Gas Company (SoCalGas), Pacific Region, is the principal distributor of natural gas in Southern California, providing retail and wholesale customers with transportation, exchange, and storage services, as well as procurement services to most retail core customers. As the nation's largest natural gas distribution utility, SoCalGas is responsible for providing safe and reliable energy to its 20.9 million consumers over a 20,000-square-mile service area throughout Central and Southern California (SoCalGas 2020). SoCalGas is a gas-only utility. As a public utility, SoCalGas is under the jurisdiction of federal and State regulatory agencies. SoCalGas receives gas supplies from several sedimentary basins in the western United States and Canada including supply basins in New Mexico (San Juan Basin), West Texas (Permian Basin), Rocky Mountains, Western Canada, and local California areas.

According to SoCalGas, there are no current deficiencies in the natural gas supply systems that serve the County. SoCalGas regularly assesses and upgrades its systems to meet current and future needs to accommodate future expansion in residential, commercial, and industrial uses.

SoCalGas' total natural gas consumption in 2018 was approximately 515,607,894 million British thermal units (BTUs)[1] (CEC 2020). According to the *2019 California Gas Report Supplement*, SoCalGas projects total gas demand to decline at an annual rate of 0.74 percent from 2018 to 2035 (California Gas and Electric Utilities 2019). The decline in throughput demand is due to modest economic growth, California Public Utilities Commission (CPUC)-mandated energy efficiency standards and programs, tighter building code standards (Title 24), renewable electricity goals, the decline in commercial and industrial demand, and conservation savings linked to Advanced Metering Infrastructure. Table 3.18-14 summarizes the projected annual gas requirements in Southern California through year 2035.

Table 3.18-14. Southern California Projected Annual Gas Requirements through Year 2035

Year	MMcf/day	Million BTUs/day
2020	2,566	2,566,000
2025	2,422	2,422,000
2030	2,310	2,310,000
2035	2,313	2,313,000

Source: California Gas and Electric Utilities 2018.
Note: Assumes average temperature and normal hydrological year.
MMcf = million cubic feet

The 2016 report also predicts that the total available capacity for these same years will remain constant at 3,875 million cubic feet per day (California Gas and Electric Utilities 2016).

Traditional Southwestern U.S. sources of natural gas will continue to supply most of Southern California's natural gas demand. This gas is primarily delivered via the El Paso Natural Gas and Transwestern pipelines. The San Juan Basin's gas supplies peaked in 1999 and have been declining at an annual rate of roughly 3 percent. In recent years, this rate of decline has accelerated. The Permian Basin's share of supply into Southern California has increased in recent years, although

[1] A BTU is a standard unit of energy measure, which is the quantity of heat required to raise the temperature of 1 pound of water 1 degree Fahrenheit at or near the temperature at which water has its greatest density (39.2 degrees Fahrenheit). A therm is a unit of heat equivalent to 100,000 BTUs.

increasing demand in Mexico for natural gas supplies may reduce the volume of Permian Basin supply available to Southern California in the future. Rocky Mountain supply supplements traditional Southwestern U.S. gas sources for Southern California. This gas is delivered to Southern California primarily on the Kern River Gas Transmission Company's pipeline, although there is also access to Rockies gas through pipelines interconnected to the San Juan Basin. Many pipelines that supply other markets connect to the Rocky Mountain region, which allows these supplies to be redirected from lower- to higher-value markets as conditions change.

3.18.2.6 Electricity

Electricity throughout the proposed project study area is provided almost exclusively by LADWP or Southern California Edison (SCE). The Cities of Burbank, Glendale and Vernon have independent water and power plants and facilities. SCE would be the retail seller of electricity to the Cities of Long Beach, Carson, Compton, Cudahy, Downey, Lynwood, Paramount, South Gate, Bell, Bell Gardens, Commerce, Huntington Park, and Maywood and unincorporated County areas. LADWP provides electricity to the City of Los Angeles.

LADWP

LADWP provides power and electrical services to the City of Los Angeles. LADWP serves approximately 1.5 million power customers, as of FY 2018:

- Residential: 1,385,000 customers
- Commercial and industrial: 124,000 customers
- Other: 7,000 customers

LADWP is responsible for the maintenance of 10,000 miles of overhead distribution lines and underground distribution cables and 15,452 transmission towers (LADWP 2020). It also maintains 160 distributing stations, 21 receiving stations, and over 50,000 substructures (LADWP 2020). In 2017, LADWP provided 30 percent of its power from renewal sources, 31 percent from natural gas, 10 percent from nuclear, 4 percent from large hydroelectric, 18 percent from coal, and 7 percent from other sources. About 70 percent of the electricity in the City of Los Angeles is consumed by business and industry, with the remaining 30 percent of residents averaging about 5,900 kilowatt-hours (5.9 megawatt-hours [MWh]) of usage per year (LADWP 2020).

LADWP's service territory covers 465 square miles in Los Angeles and much of the Eastern Sierras in Owens Valley, with annual sales exceeding 23 million MWh. LADWP is the third largest California electric utility in terms of consumption, behind Pacific Gas and Electric and SCE. Projected future demand growth for LADWP is approximately 1.3 percent per year.

LADWP has over 7,880 megawatts (MW) of power generation capacity as of 2017. The planning horizon extends from 2037 through 2050, in order to better align with statewide greenhouse gas (GHG) emissions goals and with Los Angeles's 100 percent clean energy initiative (please refer to Section 3.7, *Greenhouse Gases*, for further details). The 2017 Power Strategic Long-Term Resource Plan (LADWP 2017) serves as a comprehensive 20-year roadmap that guides LADWP's Power System in its efforts to supply reliable electricity in an environmentally responsible and cost-effective manner.

LADWP continues its commitment to energy efficiency through numerous programs and services to customers, encouraging the adoption of energy-saving practices and installation of energy-efficient equipment. Since 2000, LADWP energy efficiency programs have resulted in 2,464 gigawatt-hours (GWh) of energy savings, or about 11 percent of energy sales. In June 2017, an updated 2016/2017 Energy Efficiency Potential Study was finalized, indicating that a 15 percent energy efficiency target from 2017 through 2027 was achievable. Keeping the same pace through 2030 would allow LADWP to double its energy efficiency portfolio by 2030.

LADWP offers its customers an opportunity to participate in the Green Power Program. "Green Power" is produced from renewable resources such as wind energy, geothermal, or other renewable resources, rather than conventional generating plants. In 2016, 13,541 LADWP customers participated in the program, receiving approximately 48,873 MWh of renewable energy. Since program inception in 1999 to the end of 2016, 1,184,269 MWh of renewable energy was procured, making it one of the largest voluntary green pricing programs in the nation.

By 2030, LADWP expects to host 800 to 1,200 MW of new solar photovoltaic (PV) generation on its distribution network in addition to large-scale solar PV and wind energy resources on its bulk transmission network. Both distribution and transmission scale renewable developments are necessary to meet the State-mandated 50 percent Renewables Portfolio Standard (RPS) goals (Senate Bill [SB] 350). As more renewable energy is integrated into the system, the variability in energy production will greatly increase. The electricity consumption within LADWP's service territory is forecasted to decrease 1.2 percent over the next 5 years as energy efficiency and customer-installed solar PV expansion offset growth from economic activity. The growth in annual peak demand over the next 10 years is predicted to be about 0.4 percent—approximately 30 MW per year—with less growth over the next few years due to energy efficiency and solar PV programs.

LADWP's Load Forecast incorporates updates to reflect the latest load forecast, fuel price, and projected renewable price forecasts, and other numerous modeling assumptions. The most recent Power Integrated Resource Plan from 2012 makes projections out to FY 2039/40. A summary of the projected net energy demand for LADWP's service area through 2040 is shown in Table 3.18-15.

Table 3.18-15. Projected Energy Demand (LADWP)

Fiscal Year	Base Case Peak Demand (MW)	Growth Rate Base Year 2010-11	One-in-Ten Peak Demand (MW)[1]
2021–22	5,889	0.5%	6,423
2026–27	6,129	0.7%	6,640
2036–37	6,716	0.8%	7,288
2040–41	6,998	0.8%	7,600

Source: LADWP 2017.

[1] The one-in-ten case is the given outdoor temperature where 90 percent of the time the actual peak day temperature is expected to be below it and 10 percent of the time the actual temperature will be above it.

Under Assembly Bill (AB) 2021, publicly owned utilities such as LADWP must identify, develop, and implement programs for all potentially achievable, cost-effective energy efficiency savings and establish annual targets. The AB 2021 targets adopted represent a total goal of 3,596 GWh in energy use reduction compared to the baseline forecast over the 10-year period from FY 2013–14 through FY 2022–23, which will result in total cumulative annual energy savings across the 10-year target

period of 13.7 percent. This exceeds the minimum AB 2021-required cumulative energy savings goal of 10 percent by 37 percent.

Southern California Edison

As one of the nation's largest electric utilities, SCE provides electricity to approximately 15 million people in a 50,000-square-mile service area that includes portions of 15 counties and hundreds of cities and communities within Central, Coastal, and Southern California (SCE 2019). In 2019, SCE's power system experienced a peak demand of 22,009 MW, and the annual electricity sale to customers was approximately 84,654,000 MWh (SCE 2019). Within the proposed project area, SCE is the retail seller of electricity to the Cities of Long Beach, Carson, Compton, Cudahy, Downey, Lynwood, Paramount, South Gate, Bell, Bell Gardens, Commerce, Huntington Park, and Maywood, and unincorporated County areas.

Under California's RPS program, all electricity retail sellers in the State must meet established renewable procurement targets in their retail electricity supply. The use of renewable energy sources by electricity retail sellers include wind, solar PV, solar thermal, hydroelectricity, geothermal, and bioenergy. The RPS program was initially established in 2002 by SB 1078, which required that 20 percent of electricity retail sales must be served by renewable resources by 2017. The program was subsequently accelerated in 2015 with SB 350, which mandated a 50 percent RPS by 2030 and included interim annual RPS targets with 3-year compliance periods that also required 65 percent of RPS procurement to be derived from long-term contracts of 10 or more years. In 2018, SB 100 (de León, 2018) was signed into law, which increased the RPS to: (1) 50 percent of retail sales by 2026 (moved up by 4 years from SB 350), (2) 60 percent of retail sales by 2030, and (3) 100 percent of retail sales by 2045 (carbon-free goal for 2045). Therefore, SCE would be required to meet the renewable procurement targets under the RPS program. SCE's energy resource mix used for electricity generation as of 2018 is shown in Table 3.18-16. As shown, renewable sources currently make up 36 percent of SCE's power mix, which is greater than the statewide power mix.

Table 3.18-16. SCE Energy Resources for Electricity Generation in 2018

Energy Resource	2018 SCE Power Mix	2018 California Power Mix[1] (for comparison)
Eligible Renewable	36%	31%
Biomass and Biowaste	*1%*	*2%*
Geothermal	*8%*	*5%*
Eligible Hydroelectric	*1%*	*2%*
Solar	*13%*	*11%*
Wind	*13%*	*11%*
Coal	0%	3%
Large Hydroelectric	4%	11%
Natural Gas	17%	35%
Nuclear	6%	9%
Other	0%	<1%
Unspecified sources of power[2]	37%	11%
Total	100%	100%

Source: SCE 2019.
[1] Percentages are estimated annually by CEC.

[2] "Unspecified sources of power" means electricity from transactions that are not traceable to specific generation sources.

Burbank Water and Power

BWP is a vertically integrated, publicly owned municipal utility. Being vertically integrated means that BWP generates, transmits, and distributes power to Burbank customers. BWP is owned and operated by the City of Burbank and is governed by its board and the Burbank City Council. A large portion of Burbank's electric infrastructure was constructed from the 1940s through the 1960s to serve the typical loads of that era, with 4-kilovolt (kV) service. The infrastructure has been expanded and updated over the years. Commercial developers supported and assisted in funding the expansion of the BWP system, beginning the transition from a 4 kV system to the more reliable 12 kV service and from large air-insulated electric substations to smaller, more modern, gas-insulated substations. Updating the distribution lines from 4 kV to 12 kV allowed BWP to deliver three times as much electricity, reducing power losses in the system and improving reliability (BWP 2019).

With the investment in more reliable 12 kV substation capacity, including the San Jose, Golden State, Keystone, Hollywood Way, Burbank, and Ontario Substations, BWP has been steadily transferring customers from the 4 kV service to the more reliable and efficient 12 kV service.

The 12 kV substations are primarily served from the 34.5 kV systems. Future substations will be served from the 69 kV system where possible, allowing BWP to realize additional efficiency and reliability. While BWP has made significant progress in the last 20 years, several 4 kV substations and associated distribution systems remain.

BWP's distribution system consists of the following:

- Service area of approximately 17 square miles
- Approximately 34 miles of 69 kV subtransmission
- Approximately 45 miles of 34.5 kV subtransmission
- 13 distribution substations, two customer substations, and four switching stations
- Approximately 203 miles of 4 kV distribution
- Approximately 130 miles of 12 kV distribution
- Approximately 10,600 poles
- Approximately 5,800 distribution transformers
- Approximately 52,500 customer electric meters

The most recent Integrated Resources Plan (IRP) approved by the City of Burbank (BWP 2019) indicates that residential and extra-large commercial uses consume approximately one-quarter of the city's energy resources at 25.4 percent and 25.1 percent, respectively, followed by large commercial (20.2 percent), medium commercial (18.9 percent,) and small commercial (7.3 percent). Table 3.18-17 describes the various conventional sources available to the city and their generating capacity.

Table 3.18-17. Conventional Sources of Electricity – BWP

Facility	Type	Capacity	Annual Energy Received (2017)
Magnolia Power Plant	Combined Cycle Natural Gas	310 MW, 95 MW for BWP	400,000 MWh
Lake One	Combustion Turbine	45 MW	50,000 MWh
Olive 1 and 2	Steam Turbine	89 MW	0 MWh (dry lay-up)
Hoover Dam	Hydroelectric	1951 MW, 20,125 MW for BWP	26,000 MWh
Intermountain Power Project[1]	Two-Unit Coal-Fired Thermal Plant	1900 MW, 74 MW for BWP	576,000 MWh
Palo Verde	Nuclear Generating Station	4,010 MW, 9.5 MW for BWP	70,000 MWh

Source: BWP 2019.
[1] To be discontinued in 2025.

In 2007, Burbank became the first city to commit to a 33 percent renewable power supply portfolio standard. Since then, BWP has undertaken several initiatives to bring renewable resources into its power supply portfolio. By 2015, 34 percent of Burbank's power supply came from renewable resources, 5 years ahead of schedule. Today, renewable resources represent about 32 percent of total supplies. Table 3.18-18 summarizes Burbank's renewable power sources.

Table 3.18-18. Burbank Water and Power Renewable Power Sources

Project	Location	Technology	Annual Energy
Burbank Solar Demonstration	Burbank, CA	Fixed Tile – Solar PV	9 MWh
Copper Mountain Solar 3	Boulder City, NV	Fixed Tilt – Solar PV	91,000 MWh
Pebble Springs Wind Project	Gilliam County, OR	Wind	29,000 MWh
Milford Wind Project	Beaver and Millar Counties, UT	Wind	26,500 MWh
Pleasant Valley	Unita County, WY	Wind	14,500 MWh
Burbank Micro-Hydro	Burbank, CA	Conduit Hydro	700 MWh
Chiquita Canyon Landfill	Valencia, CA	Landfill Gas	10,500 MWh
Don A. Campbell	Mineral County, NV	Geothermal	19,000 MWh
Desert Harvest	Riverside County, CA	Single Axis – Solar PV	43,000 MWh
Renewable Exchange	Various	Various	56,000 MWh

Source: BWP 2019.

BWP forecasts little to no peak demand or energy growth over the next 20 years (BWP 2019). This forecast is consistent with the California Energy Commission's (CEC) forecast for the same period and reflects some (but not all) development under consideration in Burbank. Table 3.18-19 summarizes energy demand forecasts through 2038.

Table 3.18-19. Energy Demand Forecasts – Burbank Water and Power

	2020	2025	2030	2035	2038
Energy (GWh)	1,131	1,140	1,153	1,180	1,211
Peak (MW)	306	310	310	309	307

Source: BWP 2019.

Glendale Water and Power

GWP serves nearly 89,000 electrical customers providing service to virtually all homes, businesses, and institutions within its limits. GWP's annual retail electrical load obligation is approximately 1.45 million MWh. GWP relies on a combination of both local and remote generation (owned and leased), coupled with spot market purchases from a variety of suppliers throughout the Western Electricity Coordination Council, including the California Independent System Operator. GWP's 2017 Power Content Label report as required by CEC shows that of 37 percent of GWP's retail energy sales were renewable energy and about 56 percent were carbon-free resources in 2017. Table 3.18-20 illustrates the details of GWP's electric power service.

Table 3.18-20. GWP Electric Power Service Statistics

Population	**205,536**
Square miles	31
Number of Distribution Miles	529
Number of Subtransmission Miles	58
Number of Poles	14,788
Number of Substations	14
Number of Meters	88,849
Power Sales (MWh)	1,452,834
Highest Peak Load	346 MW on 9/1/2017

Source: GWP 2019.

GWP's portfolio consists of local thermal generation (Magnolia and Grayson power plants), remote thermal generation (the Inter-mountain Power Project in Delta, Utah), remote hydro (Hoover Dam and Tieton small hydro), remote nuclear (Palo Verde power plant in Arizona), local landfill gas (Scholl), geothermal in Southern California, and wind projects in Northern California, Oregon, and Wyoming. Together these assets constitute 417 MW of capacity. GWP's largest resource is the City of Glendale-owned Grayson, which consists of several generating units at a single site within Glendale. Although Grayson is GWP's largest source of capacity, the bulk of the utility's energy requirements are met by firm power supply purchase contracts and short-term or spot purchases. Grayson Units 1–8 are long past their intended life cycles and will be retiring in 2021. This 173-MW reduction in local generation capacity will leave GWP with insufficient resources to reliably meet the energy needs of Glendale, thus the need to procure new power resources. GWP initially proposed building 262 MW of combined cycle and combustion turbine gas-powered resources at Grayson Unit 4 (the Original Siemens Repower Plant). Based on stakeholder input, the Glendale City Council requested GWP to explore more local and clean resource options. In May 2018, GWP issued a Clean Energy Request for Proposals to find clean-energy resources to reduce the GHG impacts of the repower. The resources submitted in the Clean Energy Request for Proposals enabled GWP to create the 2019 IRP, resulting in a cleaner and more affordable resource portfolio than the one proposed in 2015.

Table 3.18-21. Energy Demand Forecast 2020-2038 (GWP)

GWh	2020	2025	2030	2035	2038
Net Energy for Load	1,184	1,305	1,464	1,627	1,728

Source: GWP 2019.

City of Vernon

Within the City of Vernon, Vernon Public Utilities (VPU) serves about 2,000 mainly commercial and industrial customers with electric sales of approximately 1,128 GWh annually and peak loads of approximately 184 MW in the summer and 174 MW in the winter. Large and small commercial and industrial load makes up 99 percent of VPU's demand and energy sales. The VPU electric system has an annual average load factor of over 70 percent due to its predominantly industrial customer mix (VPU 2018). VPU's total electricity consumption in 2018 was 1,025,571 MWh (CEC 2020).

3.18.3 Regulatory Setting

This section identifies laws, regulations, and ordinances that are relevant to the impact analysis of utilities in this PEIR.

3.18.3.1 Federal

Water

Clean Water Act

The Clean Water Act is relevant to stormwater and wastewater discharges and water quality–related to the proposed Project. Passed in 1972, the Clean Water Act is a federal regulation with the objective to restore and maintain the chemical, physical, and biological integrity of the nation's waters by preventing point and nonpoint pollution sources, providing assistance to publicly owned treatment works for the improvement of wastewater treatment, and maintaining the integrity of wetlands. Its National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. Wastewater treatment is subject to NPDES permit requirements, as administered by the federal Environmental Protection Agency (U.S. EPA).

Safe Drinking Water Act

The Safe Drinking Water Act was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. The law was amended in 1986 and 1996 and requires many actions to protect drinking water and its sources: rivers, lakes, reservoirs, springs, and groundwater wells. The act applies to every public water system in the United States.

The Safe Drinking Water Act authorizes U.S. EPA to set national health-based standards for drinking water to protect against both naturally occurring and manmade contaminants that may be found in drinking water. U.S. EPA, states, and water systems work together to make sure that these standards are met.

Originally, the act focused primarily on treatment as the means of providing safe drinking water at the tap. The 1996 amendments greatly enhanced the existing law by recognizing source water protection, operator training, funding for water system improvements, and public information as important components of safe drinking water. This approach ensures the quality of drinking water by protecting it from source to tap.

3.18.3.2 State

Water

California Water Plan

The California Water Plan is prepared by the California Department of Water Resources, most recently updated in 2018. The plan provides a framework for water managers, legislators, tribes, agencies, businesses, academia, stakeholders, and the public to consider options and make decisions regarding California's water future. The California Water Plan, which is updated every 5 years, presents basic data and information on California's water resources including water supply evaluations and assessments of agricultural, urban, and environmental water uses to quantify the gap between water supplies and uses.

The California Water Plan also identifies and evaluates existing and proposed statewide demand management and water supply augmentation programs and projects to address the State's water needs. The California Water Plan provides resource management strategies and recommendations to strengthen integrated regional water management. The resource management strategies help regions meet future demands and sustain the environment, resources, and economy, involve communities in decision-making, and meet various goals. A resource management strategy is a project, program, or policy that helps local agencies and governments manage their water and related resources. These strategies can reduce water demand, improve operational efficiency, increase water supply, improve water quality, practice resource stewardship, and improve flood management. Additionally, the California Water Plan includes a finance plan that identifies critical priorities for State investment in integrated water management activities.

California Water Code

The California Water Code contains provisions that control almost every consideration of water and its use. Division 2 of the California Water Code provides that the State Water Resources Control Board (SWRCB) consider and act upon all applications for permits to appropriate waters. Division 6 of the California Water Code controls conservation, development, and utilization of the State water resources, while Division 7 addresses water quality protection and management.

Senate Bill 610

SB 610 (Water Code Sections 10910 and 10912) took effect on January 1, 2002. SB 610 seeks to promote more collaborative planning between local water suppliers and cities and counties. It requires that water supply assessments occur early in the land use planning process for all large-

scale development projects.[2] The required assessments must include detailed analyses of historic, current, and projected groundwater pumping and an evaluation of the sufficiency of the groundwater basin to sustain a new project's demands. It also requires an identification of existing water entitlements, rights, and contracts and a quantification of the prior year's water deliveries.

Senate Bill 221

Enacted in 2001, SB 221, which has been codified in the California Water Code beginning with Section 10910, requires that the legislative body of a city or county empowered to approve, disapprove, or conditionally approve a subdivision map must condition such approval upon proof of sufficient water supply. The term "sufficient water supply" is defined in SB 221 as the total water supplies available during normal, single-dry, and multiple-dry years within a 20-year projection that would meet the projected demand associated with the proposed subdivision. The definition of sufficient water supply also includes the requirement that sufficient water encompass not only the proposed subdivision, but also existing and planned future uses including, but not limited to, agricultural and industrial uses. SB 221 requirements do not apply to the general plans of cities and counties, but rather to specific development projects.

California Urban Water Management Act

The California Urban Water Management Planning Act requires urban water suppliers to prepare and adopt an UWMP every 5 years. The main goal of the UWMP is to forecast future water demands and water supplies under average and dry-year conditions, identify future water supply projects such as recycled water, provide a summary of water conservation best management practices, and provide a single and multi-dry year management strategy.

Sustainable Groundwater Management Act of 2014

On September 16, 2014, the Governor signed three bills—AB 1739 and SB 1168 and 1319, collectively referred to as the Sustainable Groundwater Management Act of 2014—to create a framework for sustainable, local groundwater management. The legislation allows local agencies to tailor sustainable groundwater plans to their regional economic and environmental needs. The bills establish a definition of sustainable groundwater management and require local agencies to adopt management plans for the State's most important groundwater basins. The legislation prioritizes groundwater basins that are currently over-drafted and sets a timeline for implementation:

[2] In accordance with the 2014 CEQA Statute and Guidelines Section 15155, a project is considered to be a "water-demand project" if one of the following definitions applies:

(a) A residential development of more than 500 dwelling units.
(b) A shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
(c) A commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
(d) A hotel or motel, or both, having more than 500 rooms.
(e) An industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
(f) A mixed-use project that includes one or more of the projects specified in subdivisions (a)(1)(A), (a)(1)(B), (a)(1)(C), (a)(1)(D), (a)(1)(E), and (a)(1)(G) of this section.
(g) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling-unit project.

- By 2017, local groundwater management agencies must be identified.
- By 2020, overdrafted groundwater basins must have sustainability plans.
- By 2022, other high- and medium-priority basins not currently in overdraft must have sustainability plans.
- By 2040, all high- and medium-priority groundwater basins must achieve sustainability. Additionally, the legislation provides measurable objectives and milestones to reach sustainability and a state role of limited intervention when local agencies fail to adopt sustainable management plans. Local water agencies and the County will work together to ensure compliance with this legislation.

Health and Safety Code Section 17921.3

Health and Safety Code Section 17921.3 requires low-flush toilets and urinals in the majority of buildings.

Solid Waste

California Integrated Waste Management Act

The California Integrated Waste Management Act of 1989 (AB 939) requires each city and county in California and regional solid waste management agencies to enact plans and implement programs to divert 25 percent of their waste streams by 1995 and 50 percent by 2000.

Assembly Bill 75

AB 75 (Public Resources Code 42920–42927) required all State agencies and large State facilities to divert at least 25 percent of all solid waste from landfills by January 1, 2002, and 50 percent by January 1, 2004. The law also required and now allows each State agency and large facility to submit an annual report to CalRecycle summarizing its yearly progress in implementing waste diversion programs.

California Solid Waste Reuse and Recycling Access Act

The California Solid Waste Reuse and Recycling Access Act of 1991 (AB 1327) was enacted on October 11, 1991, and added Chapter 18 to Part 3 of Division 30 of the Public Resources Code. It required each jurisdiction to adopt an ordinance by September 1, 1994, requiring any "development project" for which an application for a building permit is submitted to provide an adequate storage area for collection and removal of recyclable materials.

Assembly Bill 1826

AB 1826, commencing April 1, 2016, requires a business that generates a specified amount of organic waste per week to arrange for recycling services for that organic waste in a specified manner. The bill decreases the amount of organic waste under which a business would be subject to those requirements from 8 cubic yards or more to 4 cubic yards or more on January 1, 2017. The bill also requires a business that generates 4 cubic yards or more of commercial solid waste per week, on and after January 1, 2019, to arrange for organic waste recycling services and, if the department

makes a specified determination, would decrease that amount to 2 cubic yards on or after January 1, 2020.

This bill further requires each jurisdiction, on and after January 1, 2016, to implement an organic waste recycling program to divert organic waste from the businesses subject to this act, except as specified with regard to rural jurisdictions, thereby imposing a State-mandated local program by imposing new duties on local governmental agencies. The bill requires each jurisdiction to report to CalRecycle on its progress in implementing the organic waste recycling program, and the department would be required to review whether a jurisdiction is in compliance with this act.

Senate Bill 1383

SB 1383, enacted in 2016, establishes specified targets for reducing organic waste in landfills. This bill requires the California Air Resources Board, in consultation with the Department of Food and Agriculture, to adopt regulations to reduce methane emissions from livestock manure management operations and dairy manure management operations, as specified. The bill requires the State board to take certain actions prior to adopting those regulations. This bill requires the regulations to take effect on or after January 1, 2024, if the California Air Resources Board, in consultation with the department, makes certain determinations.

Energy (Electricity and Natural Gas)

Senate Bill 350

SB 350, signed into law on October 7, 2015, requires utilities to procure eligible renewable energy resources of 50 percent by 2030, including the following interim targets:

- Achieve 40 percent renewables by 2024.
- Achieve 45 percent renewables by 2027.
- Achieve 50 percent renewables by 2030 and maintain this level in all subsequent years.

California Code of Regulations, Title 24, Part 6

Title 24, Part 6 of the California Code of Regulations (also known as the California Energy Code) establishes energy conservation standards for new construction. These standards relate to insulation requirements, glazing, lighting, shading, and water and space heating systems. Local governmental agencies may adopt and enforce energy standards for newly constructed buildings, additions, alterations, and repairs to existing buildings provided CEC finds that the standards will require buildings to be designed to consume no more energy than permitted by Title 24, Part 6. Section 91.1300 of the City of Los Angeles Municipal Code incorporates these State requirements.

2010 California Green Building Standards Code (CALGreen)

CALGreen is a statewide mandatory green building code all cities in California were required to adopt by January 1, 2011. CALGreen requires new standards in material reuse, locally sourced materials, water/energy efficiency, and indoor air quality. To meet CALGreen requirements, the Los Angeles County Board of Supervisors adopted the Los Angeles County Green Building Standards Code (Title 31), which is designed to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a

reduced negative impact, or positive environmental impact, and encouraging sustainable construction practices in the following categories:

1. Planning and design
2. Energy efficiency
3. Water efficiency and conservation
4. Material conservation and resource efficiency
5. Environmental air quality

Senate Bill 1078

In 2002, SB 1078 (Public Utilities Code Chapter 2.3, Section 387, 390.1, and 399.25) implemented an RPS, which established a goal that 20 percent of the energy sold to customers be generated by renewable resources by 2017. The goal was accelerated in 2006 under SB 107 and expanded in 2011 under SB 2, which requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020 (LADWP 2015b).

Assembly Bill 2021

AB 2021, passed in 2006, requires CEC, on or before June 1, 2007, and every 3 years thereafter and in consultation with CPUC, to identify all potentially achievable cost-effective electricity and natural gas efficiency savings and establish 10-year statewide energy efficiency savings targets. The bill further requires all locally owned electric and natural gas utilities to meet energy-efficiency savings targets.

California Public Utilities Commission

CPUC regulates privately owned electric, telecommunications, natural gas, water, and transportation companies, as well as household goods movers and rail safety. CPUC's Energy Division sets electric rates, protects consumers, and promotes energy efficiency, electric system reliability, and utility financial integrity. CPUC regulates local natural gas distribution facilities and services, natural gas procurement, intrastate pipelines, and intrastate production and gathering. It works to provide opportunities for competition when, in the interest of consumers, it takes the lead in environmental review of natural gas–related projects, recognizes the growing interaction of electric and gas markets, and monitors gas energy efficiency and other public purpose programs.

3.18.3.3 Regional

Water

Integrated Regional Water Management Plans

IRWMPs define a clear vision and strategy for the sustainable management of water resources within a specific region delineated by one or more watersheds. IRWMPs generally contain an assessment of current and future water demand, water supply, water quality, and environmental needs. They address the challenges for delivering a stable and clean supply of water for the public, addressing stormwater and urban runoff water quality, providing flood protection, meeting water

infrastructure needs, maximizing the use of reclaimed water, enhancing water conservation, and promoting environmental stewardship. During the planning process, all stakeholders, including water distributors and purveyors, regional waterworks and sanitation districts, local public works departments, environmental organizations, non-profits, and other vested interests, work together to develop common goals, objectives, and strategies. Because water-related issues are addressed on a regional, watershed basis, these plans are instrumental in building consensus among the various stakeholders in the development and prioritization of an action plan that is complementary and leverages interjurisdictional cooperation, resources, and available funding. There are four IRWMP regions in Los Angeles County:

- Antelope Valley
- Upper Santa Clara River
- Greater Los Angeles County
- Los Angeles Gateway Region

The Greater Los Angeles County IRWMP reflects the Greater Los Angeles County Region's collaborative efforts to ensure a sustainable water supply through the more efficient use of water, the protection and improvement of water quality, and environmental stewardship. The plan integrates water supply, water quality, flood management, and open space strategies to maximize the utilization of local water resources. The region includes approximately 10 million residents, portions of four counties, and 84 cities. To make governance and stakeholder involvement manageable, the region is organized into subregions: Lower San Gabriel River and LA River, North Santa Monica Bay, South Bay, Upper LA River, and Upper San Gabriel and Rio Hondo Rivers (Leadership Committee of Greater Los Angeles County Integrated Regional Water Management Region 2014).

Metropolitan Water District of Southern California Integrated Water Resources Plan

MWD imports supplies from both the Colorado River and Northern California via the SWP while investing in a variety of storage, local supply, and conservation initiatives. The 2015 IWRP Update was adopted by MWD's board of directors in January 2016. The 2015 IRP Update reliability targets identify developments in imported and local water supply and in water conservation that, if successful, would provide a future without water shortages and mandatory restrictions under planned conditions. For imported supplies, MWD looks to make investments in additional partnerships and initiatives to maximize Colorado River Aqueduct deliveries in dry years. On the SWP, MWD is looking to make ecologically sound infrastructure investments so that the water system can capture sufficient supplies to help meet average year demands and to refill MWD's storage network in above-average and wet years. Lowering regional residential per-capita demand by 20 percent by the year 2020 (compared to a baseline established in 2009 state legislation), reducing water use from outdoor landscapes, and advancing additional local supplies are among the planned actions to keep supplies and demands in balance.

Los Angeles County Integrated Waste Management Plan

The California Integrated Waste Management Act (AB 939) mandates jurisdictions to meet a diversion goal of 50 percent by 2000 and thereafter. In addition, each county is required to prepare

and administer a Countywide Integrated Waste Management Plan. This plan is composed of the counties' and the cities' solid waste reduction planning documents, an Integrated Waste Management Summary Plan, and a Countywide Siting Element. In order to assess a jurisdiction's compliance with AB 939, the Disposal Reporting System was established to measure the amount of disposal from each jurisdiction and determine if it has met the goals.

Los Angeles County General Plan

The Conservation and Natural Resources Element of the *Los Angeles County General Plan* serves to augment the protection, conservation, and preservation of natural resource and open space areas in the County. This element addresses Open Space Resources, Biological Resources, Local Water Resources, Agricultural Resources, Mineral and Energy Resources, Scenic Resources, and Historical, Cultural and Paleontological Resources (Los Angeles County 2015). The primary goals for the Local Water Resources component are to protect and use local surface water, groundwater, and watershed resources. This is proposed to be done through a combination of goals and policies in the Conservation and Natural Resources Element. These include, but are not limited to, minimizing water pollution; actively engaging with stakeholders in the formulation and implementation of surface water preservation and restoration plans, river master plans, restoration projects, and other natural resource conservation aims; requiring compliance by all County departments with adopted Municipal Separate Storm Sewer System, General Construction, and point source NPDES permits; actively supporting the design of new and retrofit of existing infrastructure to accommodate watershed protection goals; protecting natural groundwater recharge areas and regional spreading grounds; preventing stormwater infiltration where inappropriate and unsafe; and promoting 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 (Los Angeles County 2015).

Table 3.18-22 summarizes the goals, objectives, or policies that are relevant to utilities and service systems.

Table 3.18-22. Los Angeles County General Plan Goals, Objectives, and Policies

Element	Goal, Objective, or Policy
Conservation and Natural Resources Element	• **Policy C/NR 5.5:** Manage the placement and use of septic systems in order to protect nearby surface water bodies. • **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 tributary street and greenway interface points with channelized waterways. • **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.

Element	Goal, Objective, or Policy
	• **Policy C/NR 6.4:** Manage the placement and use of septic systems in order to protect high groundwater. • **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. • **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 available land for open space to preserve watershed uplands, 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. • **Policy C/NR 12.1:** Encourage the production and use of renewable energy resources. • **Policy C/NR 12.2:** Encourage the effective management of energy resources, such as ensuring adequate reserves to meet peak demands. • **Policy C/NR12.3:** Encourage distributed systems that use existing infrastructure and reduce environmental impacts.
Public Services and Facilities Element	• **Policy PS/F 1.1:** Discourage development in areas without adequate public services and facilities. • **Policy PS/F 1.2:** Ensure that adequate services and facilities are provided in conjunction with development through phasing or other mechanisms. • **Policy PS/F 1.3:** Ensure coordinated service provision through collaboration between County departments and service providers. • **Policy PS/F 2.1:** Support water conservation measures. • **Policy PS/F 2.2:** Support educational outreach efforts that discourage wasteful water consumption. • **Policy PS/F 3.1:** Increase the supply of water though 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. • **Policy PS/F 4.4:** Evaluate the potential for treating stormwater runoff in wastewater management systems or through other similar systems and methods.

Element	Goal, Objective, or Policy
	• **Policy PS/F 5.5:** Reduce the County's waste stream by minimizing waste generation and enhancing diversion. • **Policy PS/F 5.6:** Encourage the use and procurement of recyclable and biodegradable materials. • **Policy PS/F 5.7:** Encourage the recycling of construction and demolition debris generated by public and private projects.

Source: Los Angeles County 2015.

3.18.3.4 Local

Water

City of Los Angeles Executive Directive No. 5

City of Los Angeles Executive Directive No. 5 commits to reducing per-capita use, reducing LADWP's purchase of imported potable water by 50 percent by 2024, and creating an integrated water strategy to increase local water supplies and improve water security in the context of climate change and seismic vulnerability.

City of Los Angeles Water Integrated Resources Plan

Prepared jointly by LASAN and LADWP, the City of Los Angeles adopted its Water IRP in 2006. It contains an implementable facilities plan through the year 2020 that integrates water supply, water conservation, water recycling, runoff management, and wastewater facilities planning using a regional watershed approach. The adopted IRP contains recommendations that would be achieved through a series of projects and policy directions to staff. The *One Water LA 2040 Plan* (see below) extended the planning horizon of the IWRP from 2020 to 2040.

City of Los Angeles Emergency Water Conservation Plan (Ordinance No. 181288)

The City of Los Angeles adopted Ordinance No. 181288 (amendment to Chapter XII, Article I of the Los Angeles Municipal Code) to clarify prohibited uses and modify certain water conservation requirements of the City of Los Angeles Emergency Water Conservation Plan. The purpose of the ordinance is to minimize the effect of a water shortage on the customers of the City of Los Angeles and to adopt provisions that will significantly reduce water consumption over an extended period of time.

The revised Water Conservation Ordinance contains five water conservation "phases," which correspond to severity of water shortage, with each increase in phase requiring more stringent conservation measures. Water conservation phases define outdoor watering restrictions, as appropriate, including sprinkler use restrictions and other prohibited water uses.

One Water LA 2040 Plan

The *One Water LA 2040 Plan* (City of Los Angeles 2018a) takes a holistic and collaborative approach to consider all of the City of Los Angeles's water resources—including surface water, groundwater, potable water, wastewater, recycled water, dry-weather runoff, and stormwater—as "One Water." Also, the *One Water LA 2040 Plan* identifies multi-departmental and multi-agency integration

opportunities to manage water in a more efficient, cost-effective, and sustainable manner. The *One Water LA 2040 Plan* represents the City of Los Angeles's continued and improved commitment to proactively manage all its water resources and implement innovative solutions, driven by the pLAn. The *One Water LA 2040 Plan* will help guide strategic decisions for integrated water projects, programs, and policies within the City of Los Angeles.

Los Angeles Department of Water and Power Urban Water Management Plan

In June 2016, LADWP, which is the water supplier to the project site, approved the 2015 UWMP for the Los Angeles metropolitan area. The 2015 UWMP builds upon the goals and progress made in the 2010 UWMP and continues to serve as the City of Los Angeles' master plan for reliable water supply and resources management. The 2015 UWMP is based on a 25-year planning horizon through 2040. Updates to the 2015 UWMP are consistent with the City of Los Angeles's goals and policy objectives for reliable water supply, such as the Mayor's Executive Directive No. 5 and the pLAn. The development of additional local supplies to reduce the City of Los Angeles's future dependence on purchased imported supplies is based on recommendations from prior program-level planning initiatives. These include the Recycled Water Master Documents, Groundwater System Improvement Study, Stormwater Capture Master Plan, and Conservation Potential Study. These documents are used to develop an IRWMP. The IRWMP projects water demand and supplies through 2040.

Energy

City of Los Angeles Sustainable City pLAn (Green New Deal)

On April 8, 2015, the pLAn was released establishing short-term and long-term targets for the city over the next 20 years in 14 categories to strengthen and promote sustainability of the environment, economy, and equity in Los Angeles. This plan charts a course for Los Angeles's emission-reduction targets, which calls for cutting GHG emissions to 50 percent below 1990 levels by 2025 and 73 percent below 1990 levels by 2035, and becoming carbon neutral by 2050. By following the 2019 Green New Deal Pathway, the City of Los Angeles cuts an additional 30 percent in GHG emissions above and beyond the 2015 pLAn and ensures that it stays within its carbon budget between now and 2050. The plan commits to LADWP supplying 55 percent renewable energy by 2025, 80 percent by 2036, and 100 percent by 2045. Further commitments are to increase cumulative energy by way of local solar, energy storage capacity, and demand-response programs.

Targets for water conservation in Los Angeles include sourcing 70 percent of the City of Los Angeles's water locally and capturing 150,000 AFY of stormwater by 2035, recycling 100 percent of all wastewater by 2035, and reducing potable water use per capita by 2035 and maintaining this level through 2050.

The pLAn also includes targets for increasing the use of electric and zero-emission vehicles to 100 percent by 2050, electrification of 100 percent of Los Angeles County Metropolitan Transportation Authority and Los Angeles Department of Transportation buses by 2030, and reducing port-related GHG emissions by 80 percent by 2050. The plan sets a target for 90 percent diversion of solid waste from landfills by 2025 as well as measures to reduce the urban heat-island effect.

LADWP Power Integrated Resources Plan

LADWP is responsible for the construction, operation, maintenance, and management of electric works and property for the benefit of the city and its habitats. The goal of the Power IRP is to identify a portfolio of generation resources and power system assets that meets the city's future energy needs at the lowest cost and risk consistent with LADWP's environmental priorities and reliability standards (LADWP 2015b). The 2015 Power IRP provides a 20-year framework to ensure that current and future energy needs of the city can be met over the next 20 years.

The Power IRP provides objectives and recommendations to reliably supply LADWP customers with power and to meet SB 1078's 33 percent renewable energy goal by 2020.

2018 Resilient Los Angeles Strategy

Los Angeles was selected as an inaugural member of the 100 Resilient Cities Network in 2013. This global network, pioneered by the Rockefeller Foundation, helps member cities around the world become more resilient to the physical, social, and economic challenges of the 21st century. *Resilient Los Angeles* (City of Los Angeles 2018b) is a plan that includes strategies to help Los Angeles fortify its infrastructure, protect the economy, and make the city safer. *Resilient Los Angeles* also includes the goal of strengthening the bonds of community in the City of Los Angeles's neighborhoods and reinforcing universal values like inclusion and respect.

Wastewater

City of Los Angeles Sewer Allocation (Ordinance No. 166060)

City Ordinance No. 166,060 (Sewer Allocation) limits the annual increase in wastewater flows discharged into the Hyperion Treatment Plant to 5 mgd. The Public Works Bureau of Engineering Special Order No. SO06-0691 changed the design peak dry-weather flow for sanitary sewers from three-quarter depth to one-half the sewer diameter to implement the City of Los Angeles–adopted goal of no overflows or diversions from the wastewater collection system.

City of Los Angeles Sewer System Management Plan

On May 2, 2006, SWRCB adopted the Statewide General Waste Discharge Requirements for publicly owned sanitary sewer systems. Under the Waste Discharge Requirements, the owners of such systems must implement a written SSMP and make it available to the public.

Los Angeles has one of the largest sewer systems in the world, including more than 6,600 miles of sewers serving a population of more than 4 million in its three sanitary sewer systems. To comply with the Waste Discharge Requirements, an SSMP was prepared for each of the city's three sanitary sewer systems. The SSMP is a well-integrated plan with each element designed to complement and support the others. Each year the sewer system management performance goals are set through the annual strategic planning process, the deliverables required to meet goals are defined and prioritized, the lead and support offices and resources are assigned, and progress is measured and reported on to ensure meeting or exceeding goals. Operations and maintenance program elements are tracked on a monthly basis through the City of Los Angeles's operational performance management system. Overall sewer system management performance is evaluated and reported to management monthly, quarterly, and annually following the end of each fiscal year. Any SSMP

updates necessary to enhance sewer system management performance are identified and become a part of the following year's Five-Year Strategic Planning process.

Solid Waste

City of Los Angeles Industrial Waste Control Ordinance

The Industrial Waste Management Division of LASAN was established to protect the local receiving waters by regulating industrial wastewater discharge to the city's sewer system and by administering and enforcing the Industrial Waste Control Ordinance (Los Angeles Municipal Code Section 64.30) as well as federal U.S. EPA pretreatment regulations.

Industrial facilities and certain commercial facilities that plan to discharge industrial wastewater to the city's sewage collection and treatment system are required to first obtain an industrial wastewater permit. Permits are issued when a determination has been made by the Board of Public Works for the City of Los Angeles that the wastewater to be discharged will not violate any provisions of the ordinance, the board's Rules and Regulations, the water quality objectives for receiving waters established by the Los Angeles Regional Water Quality Control Board, or applicable federal or State statutes, rules, or regulations.

All Utilities

City of Los Angeles General Plan

The *City of Los Angeles General Plan* is a comprehensive, long-term declaration of purposes, policies, and programs for the development of the City of Los Angeles. It sets forth goals, objectives, and programs to provide a guideline for day-to-day land use policies and meet the existing and future needs and desires of the community while integrating a range of state-mandated elements, including transportation, noise, safety, housing, and conservation. Table 3.18-23 lists goals, objectives, or policies relevant to utilities and service systems.

Table 3.18-23. City of Los Angeles General Plan Goals, Objectives, and Policies in Frames 1 and 5 through 9

Element	Goals, Policies, or Objectives
General Plan Framework	**Objective 3.3** Accommodate projected population and employment growth within the City and each community plan area and plan for the provision of adequate supporting transportation and utility infrastructure and public services. • **Policy 3.3.2** Monitor population, development, and infrastructure and service capacities within the City and each community plan area, or other pertinent service area. The results of this monitoring effort will be annually reported to the City Council and shall be used in part as a basis to: o Determine the need and establish programs for infrastructure and public service investments to accommodate development in areas in which economic development is desired and for which growth is focused by the General Plan Framework Element. o d. Consider regulating the type, location, and/or timing of development, when all of the preceding steps have been

Element	Goals, Policies, or Objectives
	completed, additional infrastructure and services have been provided, and there remains inadequate public infrastructure or service to support land use development. **Objective 9.2** Maintain the wastewater collection and treatment system, upgrade it to mitigate current deficiencies, and improve it to keep pace with growth as measured by the City's monitoring and forecasting efforts. • **Policy 9.2.1** Collect and treat wastewater as required by law and Federal, State, and regional regulatory agencies. • **Policy 9.2.2** Maintain wastewater treatment capacity commensurate with population and industrial needs. • **Policy 9.2.3** Provide for additional wastewater treatment capacity in the Hyperion Service Area (HSA), as it becomes necessary. • **Policy 9.2.4** Continue to implement programs to upgrade the wastewater collection system to mitigate existing deficiencies and accommodate the needs of growth and development. • **Policy 9.2.5** Review other means of expanding the wastewater system's capacity. **Objective 9.5** Ensure that all properties are protected from flood hazards in accordance with applicable standards and that existing drainage systems are adequately maintained. • **Policy 9.5.1** Develop a stormwater management system that has adequate capacity to protect its citizens and property from flooding which results from a 10-year storm (or a 50-year storm in sump areas). **Objective 9.9** Manage and expand the City's water resources, storage facilities, and water lines to accommodate projected population increases and new or expanded industries and businesses. • **Policy 9.9.1** Pursue all economically efficient water conservation measures at the local and statewide level. • **Policy 9.9.7** Incorporate water conservation practices in the design of new projects so as not to impede the City's ability to supply water to its other users or overdraft its groundwater basins. **Objective 9.10** Ensure that water supply, storage, and delivery systems are adequate to support planned development. • **Policy 9.10.1** Evaluate the water system's capability to meet water demand resulting from the Framework Element's land use patterns. **Objective 9.12** Support integrated solid waste management efforts. • **Policy 9.12.2** Establish citywide diversion objectives. **Objective 9.26** Monitor and forecast the electricity power needs of Los Angeles' residents, industries, and businesses. • **Policy 9.26.1** The Los Angeles Department of Water and Power (LADWP) shall continue to monitor and forecast its customers' peak load on its system and identify which parts of the system should be upgraded to accommodate expected growth. **Objective 9.27** Continue to ensure that all electric power customers will receive a dependable supply of electricity at competitive rates. • **Policy 9.27.1** The LADWP shall continue to generate or purchase electric power to serve its customers.

Element	Goals, Policies, or Objectives
	Objective 9.28 Provide adequate power supply transmission and distribution facilities to accommodate existing uses and projected growth. • **Policy 9.28.1** The LADWP shall continue to plan its power supply capability far enough in advance to ensure that it has available capacity to meet customer demand before it is needed. • **Policy 9.28.2** The LADWP shall continue to ensure that the City's transmission and distribution system is able to accommodate future peak electric demand for its customers. • **Policy 9.28.3** The LADWP shall continue to advise the Planning and Building and Safety Departments of any construction project that would overload a part of the distribution system during a period of peak demand. **Objective 9.29** Provide electricity in a manner that demonstrates a commitment to environmental principals, ensures maximum customer value, and is consistent with industry standards. • **Policy 9.29.3** Promote conservation and energy efficiency to the maximum extent that is cost effective and practical, including potential retrofitting when considering significant expansion of existing structures.
Community Plans (Land Use Element)	
Boyle Heights (Frame 5)	The Boyle Heights Community Plan does not contain specific policies or objectives specifically relevant to utilities.
Canoga Park-Winnetka-Woodland Hills-West Hills (Frame 9)	• **Policy 1-5.2** Ensure the availability of adequate sewers, drainage facilities, fire protection services and facilities and other public utilities to support development within hillside areas.
Central City (Frame 5)	The Central City Community Plan does not contain specific policies or objectives specifically relevant to utilities.
Central City North (Frame 5)	The Central City North Community Plan does not contain specific policies or objectives specifically relevant to utilities.
Encino-Tarzana (Frames 8 and 9)	• **Policy 1-5.2** Ensure the availability of adequate sewers, drainage facilities, fire protection services and facilities and other public utilities to support development within hillside areas.
Hollywood (Frames 6 and 7)	• **Policy** 3. In hillside residential areas to: o b. Provide a standard of land use intensity and population density which will be compatible with street capacity, public service facilities and utilities, and topography and in coordination with development in the remainder of the City. • **Policy 5.** To provide a basis for the location and programming of public services and utilities and to coordinate the phasing of public facilities with private development. To encourage open space and parks in both local neighborhoods and in high density areas. Standards and Criteria The intensity of residential land use in this Plan and the density of the population which can be accommodated thereon, shall be limited in accordance with the following criteria:

Element	Goals, Policies, or Objectives
	○ The adequacy of the existing and assured circulation and public transportation systems within the area; ○ The availability of sewers, drainage facilities, fire protection services and facilities, and other public utilities;
North Hollywood-Valley Village (Frames 7 and 8)	The North Hollywood-Valley Village Community Plan does not contain specific policies or objectives specifically relevant to utilities.
Northeast Los Angeles (Frames 5 and 6)	• **Policy 1-5.2** Ensure the availability of paved streets, adequate sewers, drainage facilities, fire protection services and facilities, and other emergency services and public utilities to support development in hillside areas.
Reseda – West Van Nuys (Frame 9)	The Reseda-West Van Nuys Community Plan does not contain specific policies or objectives specifically relevant to utilities.
Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass (Frames 7 and 8)	• **Policy 1-5.2** Ensure the availability of adequate sewers, drainage facilities, fire protection services and facilities and other public utilities to support development within hillside areas.
Silver Lake-Echo Park-Elysian Valley (Frame 6)	• **Policy 1-6.2** Ensure the availability of adequate sewers, drainage facilities, fire protection services and facilities and other public utilities to support development within hillside areas.
Van Nuys-North Sherman Oaks (Frame 8)	The Van Nuys-North Sherman Oaks Community Plan does not contain specific policies or objectives specifically relevant to utilities.

Source: City of Los Angeles 1995, 1996, 1998a, 1998b, 1998c, 1998d, 1999a, 1999b, 1999c, 2000, 2003, 2004, 2014b.

Other Jurisdictions

Table 3.18-24 summarizes policies and objectives relevant to the proposed Project. The table is organized by the jurisdictions from south to north, as represented in Frames 1 through 9.

Table 3.18-24. Other General Plan Policies and Objectives

Jurisdiction	Policies and Objectives
City of Long Beach (Frames 1, 2)	**Conservation Element** *Water Resource Management Goals* 1. To assure adequate quantity and quality of water to meet the present and future domestic, agricultural and industrial needs of the City. 2. To enforce existing ordinances and develop new ordinances and promote continuing research directed toward achieving the required stringent water quality standards which regulate wastewater effluent discharge to ocean waters, bays and estuaries, fresh waters and groundwater. 5. To maintain, upgrade, and improve wastewater systems and facilities serving Long Beach. 6. To develop a comprehensive City-wide water supply and management program which utilizes water from all sources including groundwater. **Land Use Element** • **LU Policy 17-1:** Coordinate land use development and infrastructure investment. • **LU Policy 17-2:** Maintain adequate and sustainable infrastructure systems to protect the health and safety of all Long Beach residents, businesses, institutions and regional-serving facilities.

Jurisdiction	Policies and Objectives
	• **LU Policy 17-3:** Prioritize improvements in underserved neighborhoods to remedy deficiencies in infrastructure, public facilities and services. • **LU Policy 20-9:** Recycle or beneficially reuse a majority and growing proportion of the City's wastewater supply. • **LU Policy 20-10:** Seek to supply a majority and growing proportion of the City's water for both domestic and non-potable demand through use of reclaimed and recharged groundwater sources by 2030. • **LU Policy 20-11**: Coordinate with other agencies to reduce stormwater runoff by capturing runoff for groundwater recharge, irrigation and recycling purposes. • **LU Policy 21-6:** Promote green infrastructure systems to preserve natural resources and to clean and filter out toxins from water bodies. **Mobility Element** • **MOP Policy 5-1:** Incorporate "green infrastructure" design and similar low impact development principles for stormwater management and landscaping in streets. • **MOG Policy 16-4:** Implement innovative and environmentally responsible solutions for local and regional infrastructure needs. • **MOR Policy 18-1:** Encourage residents and businesses to install solar and wind power systems. • **MOR Policy 19-2:** Ensure that development is appropriate and in scale with current and planned infrastructure capabilities. • **MOR Policy 19-3:** Promote water-efficient fixtures and appliances to reduce water demand. • **MOR Policy 19-4:** Expand the use of water recycling and graywater systems to treat and recycle wastewater and to further reduce water demand related to irrigation of landscaped areas. • **MOR Policy 19-5:** Implement low-impact development techniques to reduce and improve the quality of stormwater runoff. **Urban Design Element** • **Policy UD 1-2:** Focus development and supporting infrastructure improvements within targeted Areas of Change identified within the Land Use Element. • **Policy UD 5-5:** Accommodate space for the use of rooftop solar panels and other forms of renewable energy on buildings, underutilized sites, utility plants, and parking facilities through a simplified permitting process, wherever feasible. • **Policy UD 5-6:** Encourage the establishment of electric vehicle charge points and other alternative fuel accommodations at new public and private projects and suitable locations throughout the City. • **Policy UD 5-7:** Collect and filter "first flush" stormwater with innovative parkways, naturalized drainage swales, green drainage systems, bioswales, and planter boxes in order to minimize run-off. • **Policy UD 6-1:** Prioritize improvements to remedying infrastructure, public facilities, and service deficiencies to underserved neighborhoods and business hubs.

Jurisdiction	Policies and Objectives
	• **Policy UD 6-3:** Maintain adequate and sustainable infrastructure systems to protect and enhance the health and safety of all Long Beach residents, businesses, institutions, and regional serving facilities. • **Policy UD 6-4:** Promote sustainability through the use of new technologies and green infrastructure to upgrade city infrastructure systems and equipment. Prioritize areas to retrofit with green infrastructure, Low Impact Development, and Best Stormwater Management Practices. • **Policy UD 6-5:** Ensure buildings meet the City's requirements for sustainability and green development, both for construction and operation. • **Policy UD 31-7:** Ensure landscaping for new projects complies with Title 23, Chapter 2.7 of the California Code of Regulations, Model for Water Efficient Landscape Ordinance • **Policy UD 31-8:** Incorporate water conservation methods, such as regular adjustment of irrigation controllers, irrigation scheduling based on plant water needs, preventing overspray, water-efficient landscape designs using low water-use plants, efficient irrigation systems, minimize turf areas, soil improvement and mulch, watering during early or late hours, and water budgeting using Water Use Classification of Landscape Species (WUCOLS) to reduce the amount of water used in a landscape. • **Policy UD 39-7:** Consider providing bioswales, pervious strips, flow-through planters, and pervious pavement to help infiltrate stormwater runoff before it enters the sewer system.
City of Carson (Frame 2)	**Land Use Element** • **LU-13.3** Continue and, when possible, accelerate the undergrounding of utility lines throughout the City. • **LU-15.7** Provide for the efficient use of water through the use of natural drainage, drought-tolerant landscaping, and use of reclaimed water, efficient appliances and water conserving plumbing fixtures. **Transportation and Infrastructure Element** • **TI-8.1** Continue to maintain, improve and replace aging water and wastewater systems to ensure the provision of these services to all areas of the community. • **TI-8.2** As development intensifies and/or as land redevelopment occurs in the City, ensure that infrastructure systems are adequate to accommodate any intensification of use, as well as existing uses. • **TI-10.3** Rehabilitate public facilities using technologies, methods, and materials which result in energy and water savings, and implement cost effective, long-term maintenance programs. • **TI-10.4** Ensure that construction of new civic facilities have state of the art technologies. **Housing Element** • **Policy 2.5:** Continue to improve streets, drainage, sidewalks, alleys, street trees, parks and other public amenities and infrastructure. **Safety Element** • **SAF-2.1** Continue to maintain and improve levels of storm drainage service.

Jurisdiction	Policies and Objectives
	• **SAF-2.2** Continue to work with the appropriate local, State and Federal agencies (i.e., Los Angeles County Department of Public Works, Caltrans, Federal Emergency Management Agency, etc.) to reduce the potential for flood damage in the City of Carson. • **SAF-2.3** Ensure that areas experiencing localized flooding problems are targeted for storm drain improvements. To this end, work closely with Los Angeles County Department of Public Works and other cities in the South Bay region to ensure that facilities are adequate to accommodate storm waters. • **SAF-2.4** As development intensifies and/or as redevelopment occurs in the City, ensure that storm drain systems are adequate to accommodate any intensification of uses, as well as existing uses. • **SAF-2.5** Periodically review and recommend appropriate changes to the Los Angeles County Department of Public Works for the Storm Drainage Master Plan for Los Angeles County. **Open Space and Conservation Element** • **OSC-1.5** Utilize electric transmission and other utility corridors for greenbelt and recreational uses where appropriate. • **OSC-2.3** Conserve the water supply available to the City and promote water conservation in the management of public properties. • **OSC-3.2** Support the development of alternative sources of energy such as roof-mounted solar panels, fuel cells or new technology. • **OSC-3.3** Work with energy providers to develop and implement programs to reduce electrical demand in residential, commercial and industrial developments. • **OSC-3.4** Support energy conservation via alternative forms of transportation. • **OSC-4.1** Reduce the generation of solid waste from sources in the City in accordance with the Source Reduction and Recycling Element for Carson (separate from this General Plan) and state regulations. • **OSC-4.3** Facilitate physical collection of recyclable waste.
City of Compton (Frames 2 and 3)	**Conservation, Open Space, and Recreation Element** • **Conservation, Open Space, and Recreation Policy 1.1.** The City of Compton will protect groundwater resources from depletion and contamination. • **Conservation, Open Space, and Recreation Policy 1.2.** The City of Compton will conserve imported water by educating residents and businesses about water conservation techniques. • **Conservation, Open Space, and Recreation Policy 1.3.** The City of Compton will utilize drought-resistant landscaping where feasible. **Public Safety Element** • **Public Safety Policy 2.1.** The City of Compton will work with the Los Angeles County Department of Public Works to identify and construct needed local and regional storm drain improvements to prevent flooding problems in Compton.

Jurisdiction	Policies and Objectives
	• **Public Safety Policy 2.2.** The City of Compton will require local drainage-related improvements as part of new development approvals. **Urban Design Element** • **Urban Design Policy 3.2.** The City of Compton will identify and prioritize public infrastructure revitalization and beautification projects and will implement them according to these priorities.
City of Cudahy (Frame 3)	**Circulation Element** • **Policy CE-5.1:** Work with the owning/operating sewer, water, and storm drain agencies to ensure adequate maintenance and regulatory compliance. • **Policy CE-5.2:** Comply with County DWP's requirement for project specific hydraulic analysis on the existing storm drain system for all new developments and redevelopments through a formal plan check process. • **Policy CE-5.3:** Ensure new projects comply with the Los Angeles County MS4 permit. • **Policy CE-5.4:** Encourage use of onsite Best Management Practices (BMPs) or biofiltration to treat storm water for project sites where infiltration is infeasible. • **Policy CE-5.5:** Comply with LA County Fire Department requirements for projects that propose increases in land use density. **Open Space and Conservation** • **Policy OSCE-1.1:** Support the creation of a recycled water system and actively promote its use. • **Policy OSCE-1.2:** Promote water conservation in all land uses and in City practices. • **Policy OSCE-1.3:** Promote sustainable landscaping practices that help conserve energy and reduce water consumption. • **Policy OSCE-1.4:** Fulfill the Cal Green Building Code's voluntary tiers in constructing public buildings, when feasible. • **Policy OSCE-1.7:** Integrate stormwater treatment best practices—including bioswales, pervious pavement—wherever possible, especially in landscaping and parking lot design. • **Policy OSCE-1.8:** Incorporate Low Impact Development (LID) approaches into the design and upgrades of public infrastructure. • **Policy OSCE-1.10:** Reduce the visual impact of aboveground and overhead utilities, including electric lines, by working with SCE to maximize opportunities to place utilities underground, and requiring the placement of utilities underground for new development. • **Policy OSCE-1.11:** Strengthen requirements for underground utilities in older sections of the city as part of redevelopment projects to address public safety issues and to improve the aesthetic quality of streets and neighborhoods. • **Policy OSCE-1.12:** Take a leading role in waste reduction by promoting recycling and composting, purchasing postconsumer recycled products for City facilities, using recycled materials in City operations, and reducing the overall amount of solid waste produced.

Jurisdiction	Policies and Objectives
	• **Policy OSCE-1.13:** Encourage recycling, composting, and source reduction by residential and nonresidential sources in Cudahy. • **Policy OSCE-1.14:** Meet or exceed State mandates regarding the diversion of waste from landfills. • **Policy OSCE-4.1:** Coordinate with the owning/operating sewer, water, and storm drain agencies to ensure adequate maintenance and regulatory compliance. • **Policy OSCE-4.3:** Encourage use of onsite Best Management Practices (BMPs) or biofiltration to treat storm water for project sites where infiltration is infeasible. • **Policy ED-1.11:** Improve infrastructure and public facilities in targeted areas where necessary to support economic development. **Safety Element** • **Policy SE-4.3:** Prioritize improvements to Cudahy's storm water management systems (storm drain improvements, reduction of impervious surfaces, etc.) to better serve areas prone to intermittent flooding. • **Policy SE-4.4:** Require improvements to be made to utility transmission and distribution systems including electrical, gas, water, wastewater, and storm drainage, thus accommodating new growth and ensuring that maintenance is performed on these systems in a manner that provides safety, reliability, and environmental compatibility. **Air Quality Element** • **Policy AQE-4.1:** Adopt a citywide benchmark goal to divert 75% of annual waste away from landfills by 2025; track annual progress. • **Policy AQE-4.2**: Develop a minimum 50% diversion rate requirement for construction and demolition projects. • **Policy AQE-4.3** Increase composting, recycling, and efforts to reduce waste generation, focusing especially on large commercial and industrial waste producers, but also accommodating the needs of residents in multi-unit housing.
City of Downey (Frame 3)	• **Policy 2.7.1.** Provide adequate utility and communications infrastructure. • **Policy 4.1.1** Promote conservation of water resources. • **Policy 4.1.2.** Maintain the water supply system to meet water demands. • **Policy 4.6.1** Promote the conservation of energy by residents and businesses to conserve energy. • **Policy 4.6.2.** Reduce energy consumption by City operations. • **Policy 4.7.1.** Reduce the amount of solid waste generated within the City.
City of Lynwood (Frame 3)	• **DW-1.1 Domestic Water Supply:** The City shall provide an adequate supply of domestic water needed to meet current City demand and future developments • **DW-1.3 Water Conservation:** The City shall require that water conservation measures be implemented into all construction projects • **DW-1.4 Reclaimed Water:** The City shall encourage the use of reclaimed water.

Jurisdiction	Policies and Objectives
	• **WCT-1.1 Adequate Service Capacity:** The City shall work to ensure that an adequate wastewater collection and treatment system is available to service current demand and future developments. • **WCT-1.2 Treatment Plant Operations:** The City shall work with the County of Los Angeles and to maintain and operate their wastewater facilities in a manner that does not jeopardize the public's health, safety, or welfare. • **WCT-1.4 Reclaimed Water:** The City shall work with the County of Los Angeles to pursue opportunities for the use of reclaimed wastewater. • **SD-1.1 Adequate Facilities:** The City shall provide storm drain facilities with sufficient capacity to protect the public and property from stormwater damage. • **SD-1.3 Facilities Management:** The City shall manage flood control facilities in accordance with local state and federal guidelines. • **ELC-1.1 Adequate Service Capacity:** Ensure adequate low-cost electricity is available to service current demand and future developments. • **ELC-1.2 Safe Facilities:** Ensure that electrical facilities are safe and nonintrusive to the community. • **GAS 1.1 Adequate Service Capacity:** The City shall work with Southern California Gas Company SCG to ensure that adequate low-cost gas service is available to meet existing demand and service future projects • **SW-1.1 Adequate Services:** The City shall work with Western Waste to ensure low-cost refuse disposal is available for residential industrial and commercial properties.
City of Paramount (Frame 3)	• **Resource Management Element Policy 14.** The City of Paramount will negotiate agreements with the Southern California Edison Company, the Los Angeles Department of Water and Power, the Port of Los Angeles, the Union Pacific Railroad, the MTA, and the Los Angeles County Flood Control District for the establishment of trails, recreational use, and appropriate landscaping within their respective rights-of-way. • **Economic Development Element Policy 14.** The City of Paramount will continue to improve the infrastructure in those areas that are deficient in infrastructure. • **Public Facilities Element Policy 2.** The City of Paramount will provide water storage and delivery capacity to meet normal usage and fire requirements. • **Public Facilities Element Policy 4.** The City of Paramount will protect, conserve, and enhance water resources through implementation of the Water Master Plan. • **Public Facilities Element Policy 5.** The City of Paramount will maintain economical and responsive solid waste collection and disposal services for its residents. • **Public Facilities Element Policy 6.** The City of Paramount will require solid waste collection, disposal, and recycling techniques to be undertaken in such a manner so as to reduce noise and other adverse effects.

Jurisdiction	Policies and Objectives
	• **Public Facilities Element Policy 7.** The City of Paramount will continue to implement its recycling and waste reduction programs as a means to comply with the AB 939 requirements. • **Public Facilities Element Policy 8.** The City of Paramount will provide adequate sewage service to ensure that waste disposal practices are in accordance with policies and procedures of the Sanitation Districts of Los Angeles County.
City of South Gate (Frame 3)	**Community Design Element** **Objective CD 2.6**: Ensure that existing and future development is adequately serviced by infrastructure and public services. • **P.1** The approval of new development projects will be expedited for projects that best meet General Plan goals and design guidelines, and that provide supporting infrastructure and public services that contribute to an overall improvement to the quality of life in the City. • **P.2** New development should pay its fair share of required improvements to public facilities and services. • **P.3** Infrastructure should be in place or planned prior to approval of new development projects that requires such infrastructure. **Green City Element** **Objective GC 6.1**: Increase the use of green techniques in new buildings, new building sites and building remodels and retrofits. • **P.4** The City should emphasize design for water conservation in its green building efforts. • **P.5** New buildings should meet or exceed California Title 24 energy efficiency requirements. • **P.6** When feasible or required by law, new development should utilize Low Impact Design (LID) features, including infiltration of stormwater, but LID should not interfere with the City's goals of infill development and appropriate densities as defined in the Community Design Element. **Public Facilities Element** **Objective PF 4.1**: Reduce the volume of solid waste generated in South Gate through recycling and resource conservation. • **P.1** The City will meet or exceed the State's goal of diverting 50 percent of all solid waste from landfills by 2010 and adjust the percentage of diversion as mandated by the State. **Objective PF 5.1**: Ensure that a reliable water supply can be provided within the City's service area, while remaining sensitive to the climate. • **P.1** The City will maintain water storage, distribution and treatment infrastructure in good working condition in order to supply domestic water to all users with adequate quantities, flow and pressure. • **P.2** The City will promote water conservation by implementing the recommendations of the Urban Water Management Plan. • **P.3** The City will support the efforts of the Central Basin Municipal Water District to expand the use of recycled water in the City. • **P.4** Water distribution infrastructure will be replaced as needed to improve water delivery and fire flow as well as to maintain healthy and safe drinking water for all residents and businesses. To the extent feasible, the

Jurisdiction	Policies and Objectives
	replacement should be concurrent with major infrastructure or development projects within the City. **Objective PF 5.2**: Promote water conservation and increase the use of reclaimed and recycled water. • **P.1** The City will seek to build an integrated, extensive system of reclaimed and recycled water. • **P.2** As existing water distribution infrastructure is replaced, the City should consider adding recycled water distribution systems to minimize construction costs. • **P.3** Recycled and reclaimed water should be used in City-owned parks, plazas, landscaped medians and other public spaces and in privately-owned open spaces, where feasible. • **P.4** The City should encourage potential customers for reclaimed or recycled water by providing and/or publicizing incentives for using reclaimed or recycled water instead of potable water, where appropriate. • **P.5** The City will consider requiring new non-residential and multi-family projects with 25 or more units to be built in such a way that they are able to use reclaimed water whenever it becomes available in the future. • **P.6** The City will promote water conservation in its own operations and through public education, incentive programs, and standards for new and retrofitted development. The City will work with other agencies such as the Central Basin Municipal Water District, the Water Replenishment District, the Metropolitan Water District and Golden State Water Company to promote water conservation. • **P.7** New development projects should seek opportunities for rainwater capture and reuse. • **P.8** The City will promote water conservation through site design, use of efficient systems, xeriscape and other techniques. • **P.9** New City facilities should use xeriscape, native plant species, low flow plumbing and other water conserving techniques, to the greatest extent feasible. **Objective PF 5.3**: Promote coordination between land use planning and water facilities and service. • **P.1** The City will be responsible for replacing new distribution water lines, as necessary, to meet future needs. Individual development projects will be responsible for the construction of all necessary on-site water improvements and connecting to the water mains. • **P.2** The City will collect water impact fees for new development. • **P.3** The availability of sufficient, reliable water will be taken into account when considering the approval of new development. • **P.4** The City will manage energy use for all water facilities and upgrade water system pumps, motors and other devices to improve energy efficiency to reduce costs. **Objective PF 6.1**: Provide high-quality wastewater services to residents and ensure enforcement of wastewater regulations. • **P.1** The City will maintain wastewater infrastructure in good condition.

Jurisdiction	Policies and Objectives
	• **P.2** The approval of new development will be conditional on the availability of adequate, long-term capacity of wastewater treatment, conveyance and disposal sufficient to service the proposed project. • **P.3** The City will follow current environmental best practices in the treatment of wastewater. • **P.4** The City will continue to work with the Los Angeles County Sanitation District to ensure the use of Best Management Practices in the City. **Objective PF 6.2**: Require steps to ensure sufficient wastewater capacity for new development. • **P.1** Prior to issuance of a wastewater permit for any future development project the City will require that project applicants pay applicable connection and or user fees to the County sanitation Districts of Los Angeles County. • **P.2** Prior to issuance of a building permit for any future development project the City will require that project applicants prepare and submit for review an engineering study to determine the adequacy of the sewer systems to accommodate the proposed project. • **P.3** Prior to issuance of a building permit for any future development project the City will require that project applicants provide evidence that the County Sanitation District of Los Angeles County has sufficient wastewater transmission and treatment plant capacity to accept sewage flows from buildings for which building permits are requested. **Objective PF 7.1**: Maintain stormwater collection infrastructure in good condition. • **P.1** Stormwater infrastructure will be maintained in good condition. • **P.3** The City's stormwater infrastructure will comply with the National Pollutant Discharge Elimination System (NPDES) Act and all other legal and environmental requirements. **Objective PF 7.2**: Encourage coordination between land use planning, site design and stormwater control. • **P.1** The City will comply with the Best Management Practices contained in the Los Angeles County Standard Urban Stormwater Mitigation Plan (SUSMP). • **P.2** The City will seek to reduce the amount of stormwater that leaves the City and will seek to improve the quality of stormwater that does leave the City. • **P.3** Where feasible, new development projects should handle all stormwater on site. Exceptions may be made where the design of such on-site stormwater facilities will have a negative impact on the urban quality of the development.
City of Bell Gardens (Frame 4)	No relevant policies.
City of Bell (Frame 4)	**Land Use and Sustainability Element** • **Land Use and Sustainability Element Policy 8.** The City of Bell shall continue to promote recycling as a means of reducing solid waste. The City shall continue to inform and educate residents and businesses regarding the best practices to follow in waste recycling and reduction.

Jurisdiction	Policies and Objectives
	• **Land Use and Sustainability Element Policy 9.** The City of Bell shall require ongoing and future land uses to employ sustainable practices to conserve water, waste, energy, and other resources. As part of this policy, new development must conform to current low-impact development requirements and Leadership in Energy and Environmental Design protocols. • **Land Use and Sustainability Element Policy 16.** The City of Bell shall continue to support the ongoing improvements to the local roadway system while protecting local neighborhoods and businesses. The City shall be proactive in ensuring that adequate public services continue to be provided and will include periodic surveys of street lighting, roadway conditions, and other utilities. • **Land Use and Sustainability Element Policy 31.** The City of Bell shall promote energy efficiency and renewable energy strategies in the review of new developments. Examples include, but are not limited to, solar panels, natural lighting, vehicle charging stations, etc. • **Land Use and Sustainability Element Policy 32.** The City of Bell shall collaborate with utility providers to identify new strategies to promote energy and water conservation. The City of Bell shall sponsor periodic meetings with the utility and service providers. **Resource Management Element** • **Resource Management Element Policy 23.** The City of Bell shall support Assembly Bill 1826 to increase diversion of solid waste for municipalities, including a policy to increase the diversion of food waste and other organic waste products. • **Resource Management Element Policy 24.** The City of Bell shall support the use of reclaimed and recycled water to reduce water consumption. The City of Bell shall support the development of new landscaping requirements that are more water conservation friendly and discourage large turf areas that will require increased water consumption.
City of Maywood (Frame 4)	**Conservation Element** • **3.2** Promote a water conservation program so the city may reduce its share of regional water consumption. • **3.4** Encourage water conservation in residential, commercial, and industrial developments through the use of water saving irrigation systems.
City of Huntington Park (Frame 4)	**Land Use & Community Development Element** • **Policy 21.** The City of Huntington Park shall require that new development(s) pay their "Fair Share" for the provision of the necessary infrastructure and other support services that will be required to serve the development. • **Policy 29.** The City of Huntington Park shall work closely with local water purveyors in determining future area needs to identify and implement water conservation programs. • **Policy 30.** The City of Huntington Park shall ensure that adequate water and sewer service is available as new development occurs.

Jurisdiction	Policies and Objectives
	• **Policy 32.** The City of Huntington Park shall strive to correct identified storm drain deficiencies and develop a long-range program for replacing aging drainage system components. • **Policy 33.** The City of Huntington Park shall work closely with the County of Los Angeles and other responsible agencies so as to reduce solid waste generated in the City. **Resource Management Element** • **Policy 7.** The City of Huntington Park shall comply with Statewide measures that are designed to promote a reduction in water use.
City of Commerce (Frame 4)	**Resource Management Element** • **Resource Management Policy 1.1.** The city of Commerce will do its part in the conservation and protection of air, water, energy, and land in the Southern California region. • **Resource Management Policy 1.5.** The city of Commerce will encourage the development of appropriate federal, state, county, and local water conservation measures in order to assure future supplies for residents. • **Safety Policy 1.3.** The city of Commerce will ensure that the public and private water distribution and supply facilities have adequate capacity to meet both the domestic supply needs of the community and the required fire flow. • **Safety Policy 3.1.** The city of Commerce will continue to cooperate with the efforts of other agencies and special districts involved in monitoring the city's water and sewer systems. • **Safety Policy 3.2.** The city of Commerce will contribute toward the maintenance of a wastewater treatment system sufficient to protect the health and safety of all residents and businesses. • **Safety Policy 3.3.** The city of Commerce will continue to request local water purveyors to provide the city with periodic reports concerning water quality.
City of Vernon (Frame 4)	**Resources Element** • **Policy R-1.1:** Encourage water conservation and the use of recycled water in new developments and by all industries. • **Policy R-1.2:** Support the use of energy-saving designs and equipment in all new development and reconstruction projects. • **Policy R-1.3:** Seek and pursue the most practicable and cost-effective means of implementing National Pollutant Discharge Elimination Systems requirements. **Circulation and Infrastructure Element** • **Policy CI-3.1:** Periodically evaluate the entire water supply and distribution systems to determine their continued adequacy and to attempt to eliminate deficiencies or enhance service. • **Policy CI-3.2:** Require all new developments and expansions of existing facilities bear the cost of providing adequate water service to meet the increased demand which they generate.

Jurisdiction	Policies and Objectives
	• **Policy CI-3.3:** Implement the programs and policies contain in the City's Urban Water Management Plan, including particularly those related to reliability planning and conservation and reuse. • **Policy CI-4.1:** Periodically evaluate the sewage disposal system to determine its adequacy to meet changes in demand and changes in types of waste. • **Policy CI-4.2:** Ensure that all new developments bear the cost of expanding the sewage disposal system to handle any increase in load that they generate. • **Policy CI-4.3:** Investigate and implement means of financing maintenance and improvements to the sewer system. • **Policy CI-5.1:** Periodically evaluate the size and condition of the storm drainage system to determine its ability to handle expected storm runoff. • **Policy CI-5.2:** Evaluate the impact of all new developments and expansion of existing facilities on storm runoff, and require that the cost of upgrading existing drainage facilities to handle the additional runoff is paid for by the development which generates the need to improve a facility. • **Policy CI-5.3:** Monitor the use and storage of hazardous materials to prevent accidental discharge into the storm drainage system. • **Policy CI-5.4:** Allow new development projects to creatively implement NPDES standards and requirements. • **Policy CI-6.1:** Expand, operate, and maintain an electrical utility system in an effort to provide an adequate level of service to businesses and other uses in the City. • **Policy CI-6.2:** Improve the electrical utility system in an effort to allow the City to meet any changes in demand over time. • **Policy CI-6.3:** Cooperate and/or participate with other agencies or parties in the expansion or development of power generation. • **Policy CI-6.4:** Evaluate the impact of all new development on the electrical energy system and require that the cost of upgrading existing facilities is paid by the development, which necessitates the upgrade. • **Policy CI-6.5:** Expand the City's capability to generate and provide natural gas to enhance the power/energy supply system. • **Policy CI-7.1:** Work with communication and technology service providers to provide for state-of-the-art internet, phone, and wireless communications equipment and services.
City of Glendale (Frame 6)	**Open Space and Conservation Element** **Goal 12**: Continue to conserve water resources and provide for the protection and improvement of water Quality. **Objective 3**: Continue water conservation programs through public awareness efforts and encourage use of drought tolerant landscaping. **Community Facilities Element** • Utilities Policies: o Maintain the high standard of utility services. o Monitor future needs for the increase in utility services.

Jurisdiction	Policies and Objectives
	○ Utilize all relevant, technological advancements to provide for the improved quality and quantity of energy at the lowest possible cost within the constraints of environmental considerations.
City of Burbank (Frame 7)	**Open Space and Conservation Element** • **Policy 9.1** Meet the goal of a 20% reduction in municipal water use by 2020. • **Policy 9.2** Provide public information regarding the importance of water conservation and avoiding wasteful water habits. • **Policy 9.3** Offer incentives for water conservation and explore other water conservation programs. • **Policy 9.4** Pursue infrastructure improvements that would expand communitywide use of recycled water.

Sources: City of Long Beach 2002; City of Carson 2004; City of Compton 1991; City of Cudahy 2018; City of Downey 2010; City of Bell 2018; City of Bell Gardens 1995; City of Huntington Park 2017; City of Lynwood 2003; City of Maywood 2008; City of Paramount 2007; City of South Gate 2009; City of Glendale 1975, 1993; City of Burbank 2013.

3.18.4 Impact Analysis

3.18.4.1 Methods

For Typical Projects (Common Elements and Multi-Use Trails and Access Gateways), analysis of potential impacts related to utilities and service systems was based on a detailed review of the project description, a virtual field study of the project study area via Google Earth, and review of the relevant planning, policy and research documents that guide utility-intensive resource planning for the project area. To the extent feasible, utility impacts are analyzed by providing overall consumption estimates (over the lifetime of the Project) for water supply, wastewater/sewer capacity (annual basis), stormwater capacity (annual basis), electricity, natural gas, telecommunications, and solid waste generation/capacity, then relating them to the relevant plans, policies, and agencies and the overall availability/supply for each respective resource area, as appropriate. Furthermore, because the continuous construction and operations activities from the Project would occur simultaneously and be ongoing over the planning period at various times and at various locations, the Project's potential impacts on utilities are also assessed by including aggregate estimates that consider the demand/consumption associated with both construction and operation. This approach provides overall consumption estimates (for the lifetime of the Project) for utilities.

Impacts associated with Typical Projects (i.e., the Common Elements and Multi-Use Trails and Access Gateways), the six kit of parts (KOP) categories and related design components—as well as the *2020 LA River Master Plan* in its entirety—are analyzed qualitatively at a program level. Where the two Typical Projects or the six KOP categories have similar impacts related to a specific criteria, the discussion is combined. Where differences between the Typical Projects or the KOP categories are identified, the impact analysis is presented separately. Furthermore, construction and operations impacts are presented together where they largely overlap and it would not be meaningful to discuss them separately to address a specific criterion.

3.18.4.2 Criteria for Determining Significance

Thresholds of Significance

For the purposes of the analysis in this PEIR, and in accordance with Appendix G of the State CEQA Guidelines, the proposed Project would have a significant environmental impact if it would:

3.18(a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

3.18(b) Have insufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years.

3.18(c) 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.

3.18(d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.

3.18(e) Not comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

3.18.4.3 Impacts and Mitigation Measures

Impacts with regard to water, wastewater, solid waste, electricity/natural gas, and stormwater drainage would vary depending on both the specific location and size of subsequent projects under the *2020 LA River Master Plan*. Different utility providers would be involved depending on a subsequent project's location and utility providers. Required utility relocation or construction/ expansion and connections would vary by subsequent project location and size, and each subsequent project would, therefore, need a site-specific analysis to determine whether relocations are required and where. Accordingly, considering the non-site-specific and non-project-specific analysis being conducted in this PEIR, to be meaningful and informative in the absence of detailed design or location information, the impact analysis on utilities/service systems from the two Typical Projects, the six KOP categories, and the overall *2020 LA River Master Plan* is presented at a program level across the entire study area and is not frame specific.

Impact 3.18(a): Would the proposed Project require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Typical Projects

Common Elements

Construction

As discussed in Chapter 2, *Project Description*, of this PEIR, the analysis of the Common Elements Typical Project assumes the most extensive footprint of a Tier III pavilion.

Typically, construction activities would not involve the use of natural gas. Additionally, electric construction tools that would be used during project-related construction would be powered by diesel-operated generators at a site rather than by electricity from the power grid (except in rare circumstances). Natural gas would not be supplied to support the proposed Project's construction activities; therefore, there would be no demand generated by construction. Construction of the Common Elements Typical Project could involve localized installation of water, electric, natural gas, and sewer infrastructure such as mains and distribution pipes, as well as relocation of existing utilities on certain sites. These activities would likely include trenching/excavation and repaving/ resurfacing and would not be expected to result in significant environmental impacts. Given the relatively small size of the Common Elements Typical Project (no more than 3 acres), it would not be anticipated that major utility upgrades or relocation for natural gas or electricity would be required.

Construction of the Common Elements Typical Project would require the use of water during construction for dust control as well as cement mixing. Truck wheel-washing may also be required to minimize dust from construction traffic. A typical water truck would require 5,000 gallons per day, for a total of approximately 1 million gallons over the 10-month construction period. Water supply targets for MWD range from 1.4 billion gallons in 2020 to 1.5 billion gallons in 2040. It would not be anticipated that demand for water during construction of the Common Elements Typical Project would necessitate the construction or expansion of water supply or treatment infrastructure.

In addition to direct demand for water, new water connections such as mains, distribution pipes, pump stations, or other water infrastructure could need to be constructed to connect to the existing water supply and distribution system. Construction of this infrastructure would not be expected to result in significant impacts on the environment given compliance with the Clean Water Act and NPDES permit requirements during construction. Construction requiring ground disturbance could encounter buried utilities including water supply infrastructure. As part of the project design, applicable jurisdictions would be required to identify the potential for underground utilities and determine whether they would need to be relocated to accommodate the Common Elements Typical Project. As standard construction practices require, applicable jurisdictions 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.

Minor alterations of the existing drainage patterns on the project site may occur as a result of the construction of new facilities and improvements. However, construction activities would not substantially alter the overall topography and drainage patterns. Additionally, the proposed Project would be required to obtain and comply with the Construction General Permit from SWRCB. This permit and associated NPDES requirements include development and implementation of a Stormwater Pollution Prevention Plan, with associated monitoring and reporting. Stormwater best management practices are required to limit erosion, minimize sedimentation, and control stormwater runoff water quality during construction activities. Therefore, no new off-site drainage facilities would be required as a result of construction activities.

It is anticipated that portable chemical toilets would be utilized on the construction sites and no wastewater generation would occur. There could be some small runoff of wash water into the storm drain system if staging areas are outside of the river channel, but this would be in relatively small amounts accommodated by the existing storm drain system. Only minor expansion of utility services to connect the site to the utility providers in the form of new power connections would be expected. Environmental impacts would be localized and minor.

Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

Impacts would be less than significant. No mitigation is required.

Operations

A Common Elements Typical Project, once constructed and operational, could attract up to 500 users on a daily basis, resulting in additional demand for utilities and generation of wastewater and solid waste. Components of the Common Elements Typical Project would require water for landscaping, restrooms, and café uses; electricity for lighting and appliances; and natural gas for appliances. Wastewater would be generated from the café use and restrooms, and some landscape runoff would enter the storm drain system per guidelines recommended in the *2020 LA River Master Plan*. All components of the Common Elements Typical Project would generate some solid waste in the form of refuse and domestic trash; green waste from maintenance operations would be sent to local composting facilities.

Demand for utilities varies depending on climate zone and intensity of use. Projects in Frames 6 through 9, where temperatures are generally higher than on the coastal side of the Santa Monica Mountains, would likely require greater amounts of electricity for cooling and water for landscaping. Conversely, projects in Frames 1 and 2 would be expected to demand less electricity due to the cooling effect of coastal breezes. However, because of its relatively small size and number of visitors, a Common Elements Typical Project, regardless of where it is located along the LA River, would not be expected to demand substantial amounts of water, electricity, or natural gas such that expansion of water supply and distribution, water treatment, electrical substations, or natural gas facilities is required to accommodate the Common Elements Typical Project. Similarly, the Common Elements Typical Project would not be anticipated to generate substantial volumes of wastewater or solid

waste such that treatment and landfill capacity would be materially affected. With regard to storm drain runoff, all projects greater than 1 acre in size would be required to comply with NPDES requirements through a Construction General Permit to minimize surface water runoff to pre-project conditions or better, such that the storm drain system would not be substantially affected (please see Section 3.9, *Hydrology and Water Quality*, for a comprehensive discussion of the NPDES permit requirements).

The Common Elements Typical Project is anticipated to consume approximately 2,075 million BTU of natural gas and 318 MWh of electricity during operation (refer to Section 3.5, *Energy*), a very small amount compared to the overall demand in the applicable service areas. A Common Elements Typical Project, regardless of where it is located along the LA River, would not be expected to demand substantial amounts of electricity or natural gas. All project-related buildings would be required to conform to California Title 24 standards for energy efficiency. Furthermore, the Common Elements Typical Project would be required to comply with the CALGreen Code and Title 24 for new building structures. As introduced in Section 3.18.2 above, Title 24, Part 6 of the California Code of Regulations establishes energy conservation standards for new construction. These standards relate to insulation requirements, glazing, lighting, shading, and water and space heating systems, and are designed to reduce wasteful, uneconomic, inefficient, or unnecessary consumption of energy and enhance outdoor and indoor environmental quality. The current 2019 California Building Energy Efficiency Standards became effective on January 1, 2020 and improve upon the previous 2016 standards for new construction of, and additions and alterations to, residential and nonresidential buildings. CALGreen is a statewide mandatory green building code that applies to the planning, design, operation, construction, use, and occupancy of newly constructed buildings and requires the installation of energy- and water-efficient indoor infrastructure for all new projects by all cities in California.

In addition, during subsequent project development, the *2020 LA River Master Plan* Design Guidelines (Design Guidelines; as described in Chapter 2, Project Description, and included in Appendix B) include recommendations for identification of existing utilities and review of applicable codes, which may include, but are not limited to, Public Works and/or American Public Works Association Standard Plans, LACFCD Code, Municipal Codes (including the County Code in unincorporated County areas), U.S. Army Corps of Engineers Policy, LID Ordinance and Manual, Los Angeles County Department of Recreation and Parks Guidelines, United States Green Building Council's Leadership in Energy and Environmental Design, United States Department of Energy Better Buildings Initiative, Energy Star, Dark Sky, Cradle-to-Cradle, and Green Globes.

With regard to electricity consumption, recommended Design Guidelines applicable to the Common Elements Typical Project under the *2020 LA River Master Plan* that would help minimize additional demand for electricity include:

- Renewable energy sources (solar, wind, water, and renewable natural gas)
- Optimized building orientation for solar exposure, diffused daylight, and passive ventilation
- High thermal performance
- Energy-efficient appliances
- Locally sourced, recycled, and recyclable materials with low embodied energy
- High-albedo roof and paving materials to mitigate heat gain

- Green roof and pervious paving
- Fixtures and controls capable of dimming lighting when occupancy loads are low (example: dimmable driver and occupancy sensor)
- Use of solar-powered light fixtures along the river wherever possible
- Use of fixtures made with recycled content where possible
- Fixtures with light-emitting diode cartridges that are easily replaced
- Regular monitoring of building systems and optimized usage

For water conservation, the following Design Guidelines are recommended:

- Adherence to County LID Standards
- On-site water retention, detention, and filtration
- Capture of 100 percent of on-site rainfall for the 85 percent rain event
- Greywater and rainwater reuse
- Low-flow water fixtures

Plantings would be chosen to flourish with little maintenance and water demand after established. Plants should require minimal maintenance and water following establishment when chosen carefully to be adapted to actual site conditions low-flow water fixtures to reduce the demand for water as well as minimize or avoid runoff. Therefore, operation of the Common Elements Typical Project would not result in or require construction or substantial expansion of utility infrastructure that could, in turn, result in significant environmental effects.

As noted in Section 3.18.3.3, each provider of utility services, whether a private supplier or municipality, prepares master plans for resources such as water, wastewater, solid waste, and energy. These are generally 20-year plans that define a clear vision and strategy for the sustainable management of water resources within a specific region delineated by one or more watersheds. IRWMPs generally contain an assessment of current and future water demand, water supply, water quality, and environmental needs. UWMPs are master plans for reliable water supply and resources management. Each of these plans considers planned growth in the applicable service areas to ensure adequate utility service will be provided that accommodates that future growth. Growth projections that may be used are on a local jurisdictional level or regional level, such as SCAG's SoCal Connect (previously known as the Regional Transportation Plan/Sustainable Communities Strategy). Planned land uses along the LA River include recreational and ecological uses; therefore, the applicable resource plans have considered future growth and planned land uses in outlining strategies for ensuring adequate supply to accommodate demand through at least 2035. These plans are generally updated every 5 years.

The Common Elements Typical Project would comply with local, regional, and state ordinances regarding water conservation, electricity conservation, drought-tolerant landscaping, and recycling. It is assumed that a majority of users of the Common Elements Typical Project would be residents of nearby communities, with a percentage of outside visitors that utilize the facilities. The Common Elements Typical Project, as uses consistent with existing land use designations and zoning, would have been included in the overall growth projections for the applicable jurisdiction and thus the

applicable resource plans. Therefore, it is not anticipated that operation of the Common Elements Typical Project would result in the need for expanded or new infrastructure for provision of utility services such that a significant environmental impact would occur.

Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

Impacts would be less than significant. No mitigation is required.

Multi-Use Trails and Access Gateways

Construction

Construction of Multi-Use Trails and Access Gateways Typical Project would have similar construction impacts as identified for the Common Elements Typical Project, although on a somewhat larger scale. As noted, all Typical Projects, including the Multi-Use Trails and Access Gateways Typical Project, would follow the requirements of NPDES permit requirements for stormwater discharge and best management practices for energy use as outlined above.

Additional utility relocation and new connections may be required for these Typical Projects. These activities would require localized trenching. However, compliance with the existing ordinances related to water conservation and NPDES permit requirements would ensure that any environmental impacts would be localized and not substantial. New or expanded infrastructure as a result of construction of the Multi-Use Trails and Access Gateways Typical Project would not be required.

Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

Impacts would be less than significant. No mitigation is required.

Operation

A Multi-Use Trails and Access Gateways Typical Project, once constructed and operational, could attract up to 1,000 users, resulting in additional demand for utilities and generation of wastewater and solid waste. Similar to the Common Elements Typical Project, Design Guidelines could be implemented to help minimize environmental effects on utility consumption and waste generation. A Multi-Use Trails and Access Gateways Typical Project would attract up to 1,000 visitors per day for recreational use. Recreational uses such as trails do not generally require substantial

infrastructure resources and would not be likely to substantially increase water, electricity, or natural gas demand, or generate substantial amounts of solid waste and wastewater. It is not anticipated that operation of a Multi-Use Trails and Access Gateways Typical Project would require substantial expansion of existing infrastructure to accommodate the uses proposed, nor would the Typical Project likely require the construction of new utility infrastructure to accommodate these uses.

All of the Design Guidelines recommended above under the Common Elements Typical Project could be implemented for the Multi-Use Trails and Access Gateways Typical Project. Additional Design Guidelines that would pertain to a Multi-Use Trails and Access Gateways Typical Project include:

- Use solar-powered call boxes along the river wherever possible.
- Maintain call boxes and lighting, deter graffiti and theft where possible, and inspect and repair for continued functionality and other damages.
- Where located in a Federal Emergency Management Agency (FEMA) 100-year floodplain, elevate call boxes and lighting above the FEMA Base Flood (100-year flood) Elevation to maintain functionality.

Lighting along the multi-use trails would be energy efficient and all landscaping would be irrigated with reclaimed water wherever feasible; drought-tolerant landscaping would reduce the demand for water for irrigation.

Similar to the Common Elements Typical Project, the Multi-Use Trails and Access Gateways Typical Project would be accounted for as planned land uses in the various resource management plans prepared by the various jurisdictions and utility providers along the LA River.

Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

Impacts would be less than significant. No mitigation is required.

2020 LA River Master Plan Kit of Parts

The Common Elements Typical Project analyzed above could be implemented in whole or as a combination of its individual elements with all the KOP categories discussed below. Therefore, for potential impacts of the Common Elements Typical Project, see above. The impact discussion below focuses on specific KOP categories only.

KOP Categories 1 through 6

Construction for KOP Categories 1 through 6 are discussed together, as the impacts would be similar. However, operations for KOP Categories 1 through 5 are discussed together, as the impacts would be similar, and operations for KOP Category 6 are discussed independently due to differences in impacts.

Construction

Construction activities for KOP Categories 1 through 6 would be similar to those discussed for the Common Elements and Multi-Use Trails and Access Gateways Typical Projects above. Construction equipment and activities would be similar, mainly differentiated by the size of the site. Larger projects such as bridges would likely involve the use of larger cranes and other equipment. Utility relocations would vary depending on the location and size of the individual project. Construction would demand water and potentially electricity but would not require natural gas. Construction equipment would be generally diesel powered, and contractors would be required to comply with local, regional, and State construction waste recycling ordinances. It is anticipated that portable chemical toilets would be utilized, so there would be no generation of wastewater. Runoff would be minimized by compliance with NPDES requirements.

Most of the KOP components would require additional utility connections, utility relocations, and expansion of existing infrastructure, depending on location and size of the subsequent projects under the KOP categories. The extent of trenching or repaving to accommodate utility relocation or the extent of aboveground utility relocations is unknown for the subsequent projects under the KOP categories. However, it is not anticipated that these activities would be extensive or result in substantial environmental effects. Construction of subsequent projects under the KOP categories would not result in significant impacts associated with relocation of utilities.

Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

Impacts would be less than significant. No mitigation is required.

KOP Categories 1 through 5

Operations

It is not anticipated that components of KOP Categories 1 through 5 would result in a significant use of electricity, natural gas, or water, or generate substantial amounts of solid waste and wastewater such that new infrastructure would be required, similar to that noted for the Common Elements Typical Project.

Channel modification projects from KOP Category 2 could involve recreational use in the form of amphitheaters, are not anticipated to have associated restroom facilities other than those already built under the Common Elements Typical Project, and would not be anticipated to include utilities other than electricity for lighting and possibly sound. The amount of electricity demanded for an amphitheater use would not be expected to be substantial enough to result in the need to expand existing electricity infrastructure or require construction of new infrastructure. Channel modifications such as terraced bank, check dams and deployable barriers, levees, armored channels/vertical walls, daylighted storm drains, removed/added concrete, bridge pier modifications, channel texturing/grooving/smoothing, and installation of access ramps would not

be anticipated to result in demand for utilities during operation or insufficiencies that would result in the expansion of existing or construction of new infrastructure.

Inclusion of crossings and platforms under KOP Category 3 is a recreational use that would not include utility fixtures other than path or interior lighting; no restroom facilities would be included in this KOP category. It is not expected that crossings and platform operation would result in a substantial demand for water, electricity, or natural gas, and these KOP categories are not anticipated to generate substantial amounts of wastewater. Channel diversions would not, other than a nominal demand for electricity for pumps, require water or natural gas, nor would these elements generate wastewater or solid waste.

Floodplain reclamation under KOP Category 5 could include recreation fields and other recreational uses. These uses would require the use of electricity, natural gas, and water, and could generate wastewater and solid waste. However, it is not anticipated that these demands would result in the need for expansion of existing infrastructure or the construction of new infrastructure such that an environmental impact could occur. Similar to the Typical Projects, floodplain reclamation projects would be accounted for as planned land uses in the various resource management plans prepared by the various jurisdictions and utility providers along the LA River. However, there could be localized deficiencies identified on a site-specific basis.

As noted, there are numerous resource master plans that are applicable to the study area that consider planned growth and zoning to ensure adequate provision of utility services into the future. Similar to the Typical Projects, growth that could result in increased demand for utilities has been accounted for in the various resource management plans of the service providers and municipalities along the LA River. However, there could be potentially significant impacts with regard to sufficient supply/capacity for one or more utilities for operation of KOP Category 1 through KOP Category 5.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

If a subsequent project requires relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the implementing agency will implement the following mitigation measure:

Mitigation Measure UTIL-1: Prepare and Implement Utilities Plan.

During design, the implementing agency will prepare a utilities plan that:

- Identifies the location of existing utilities and connections and new/expanded infrastructure that will be required to connect to existing services
- Quantifies demand and generation factors for construction of the new/expanded infrastructure on a project-specific basis and determine whether supply/capacity can meet demand
- Identifies project modifications that will minimize any significant environmental impact on utilities

As part of the utilities plan, the implementing agency will prepare a utilities report that compares the expected operational demand and generation for the various utility resources against existing supply and infrastructure to determine whether sufficient capacity exists to accommodate the Project; if any insufficiency is identified, the implementing agency will modify the Project to avoid the impact in consultation with the affected utility provider(s). Modifications to the Project could include the following site-specific conservation features above those required by the applicable codes and ordinances:

- On-site wastewater treatment
- On-site recycled water infrastructure
- On-site solid waste recycling
- Solar panels
- Use of alternative energy such as biofuels

Significance after Required Mitigation

Impacts would be significant and unavoidable.

KOP Category 6

Operations

Operational impacts on utilities for projects under KOP Category 6 would vary depending on the type of project. A housing or wastewater treatment facility project, for example, would demand greater amounts of water, electricity, and natural gas than spreading grounds or dry wells, which would not be expected to demand these utilities. These projects would be evaluated on a subsequent-project-specific and location-specific basis to determine the level of impact, if any, on utilities. Because the extent of these projects is unknown, there could be localized insufficiencies of utility services that could require expansion of existing infrastructure or construction of new infrastructure and an environmental impact could occur.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Apply the following mitigation measure, which is described above.

Mitigation Measure UTIL-1: Prepare and Implement Utilities Plan.

Significance after Required Mitigation

Impacts would be significant and unavoidable.

Overall 2020 LA River Master Plan Implementation

Construction and Operations

The specific location or size of subsequent projects under the *2020 LA River Master Plan* is not currently known. As discussed above, construction of subsequent projects under the KOP categories 1 through 6 would not result in significant impacts associated with relocation of utilities. Considering the overall *2020 LA River Master Plan* includes 107 projects that would range in size from up to 3 acres/1 mile to more than 150 acres/10 miles in size, and that most of them (85) would be of smaller size (3 acres/1 mile), it is reasonable to assume that for larger projects, insufficiencies in utilities could occur that would require the expansion or construction of new facilities, which could, in turn, result in significant environmental impacts. Each subsequent project would require evaluation to determine whether insufficiencies in utilities exist. Implementation of mitigation would reduce the level of impact, but not necessarily to a less-than-significant level. Therefore, the impact would be significant and unavoidable during operations.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Apply the following mitigation measure, which is described above.

Mitigation Measure UTIL-1: Prepare and Implement Utilities Plan.

Significance after Required Mitigation

Impacts would be significant and unavoidable.

Impact 3.18(b): Would the proposed Project have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years?

Typical Projects

Common Elements and Multi-Use Trails and Access Gateways

Construction

Construction of both Typical Projects would require the use of water during construction for various purposes such as dust control and cement mixing and other construction activities. Truck wheel-washing may also be required to minimize dust from construction traffic. However, the incremental increase in water use as a result of construction activities would be temporary and not substantial; therefore, existing water supplies would be sufficient to meet this demand. Although construction of Typical Projects could extend over a period of years, water use demand during construction would be relatively small, with a typical water truck for dust control averaging 5,000 gallons per day for a total of approximately 1 million gallons over the 10-month construction period for the 3-acre or 1-mile-long Common Elements Typical Project. Considering that the Multi-Use Trails and Access Gateways Typical Project would have a 20-month construction schedule and be 5 miles long, it can be assumed that it would require between approximately 2 million and 5 million gallons over the

20-month construction period. Water supply targets for MWD range from 1.4 billion gallons in 2020 to 1.5 billion gallons in 2040. It is not anticipated that demand for water during construction of the Common Elements and Multi-Use Trails and Access Gateways Typical Projects would exceed supply. Environmental effects would be localized and minor compared to the overall water demand for the region.

Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

Impacts would be less than significant. No mitigation is required.

Operations

As noted in Section 3.18.2, *Geographic Setting*, various water providers serve the cities and unincorporated County areas along the LA River. Some cities' utility departments operate individual services, such as Long Beach, Downey, Compton, Lynwood, Paramount, South Gate, Huntington Park, Glendale, and Burbank. Other cities utilize independent water providers such as GSWC, California State Water Company, and several smaller providers. The City of Los Angeles is served by LADWP, which has the largest service area at 469 square miles, managing the LAA, local groundwater, and supplemental water purchased from MWD (see Table 3.18-25). A Common Elements Typical Project would be served by the water agencies in whose jurisdiction it is located.

A typical restaurant/café would demand approximately 3,920 gallons per day (see Table 3.18-25). On-site restrooms would also demand water. The estimates that follow are based on a "worst-case" scenario where all 500 visitors to a Common Elements Typical Project would use the restroom every day (although just once), including sinks, toilets, and showers. Restroom use would require approximately 6,100 gallons per day for toilet use, 5,500 gallons per day for showers, and 55 gallons per day for sink use (see demand factors in Table 3.18-25). This is highly conservative, as not all 500 visitors would utilize the shower facilities at a given site. Therefore, it is estimated that a Common Elements Typical Project would demand approximately 15,520 gallons per day. This estimate is extremely conservative in that it does not take into account the use of low-flow plumbing fixtures, which could reduce demand by up to 50 percent. Table 3.18-25 provides these calculations in tabular format.

Table 3.18-25. Common Elements Typical Project Water Demand (Operation)

Use	Demand Factor	Demand per day (gallons)
Restaurant	35 gallons per seat	3,920
Restroom toilets/urinals	3.0/1.6 gallons per flush (three toilets and two urinals)	6,100
Restroom showers	2.2 gpm (assumes 5 minutes per use)	5,500
Total		**15,520**

Source: Pacific Institute 2013.

MWD, LADWP, CBMWD, and the Cities of Burbank, Glendale, Compton, Lynwood, Vernon, Downey, and South Gate all have water management or resource plans that address water supply and demand using growth projections from SCAG. These plans contain water conservation strategies and policies to reduce water demand and prioritize future supply that will be needed to accommodate growth.

The Cities of Cudahy, Downey, Huntington Park, Lynwood, Paramount, South Gate, and Vernon purchase recycled water from CBMWD. GSWC also purchases recycled water from CBMWD (CBMWD 2016). Recycled water is used for irrigation of schools, parks, and other public spaces. There is the potential for both Typical Projects to utilize recycled water where available for landscape irrigation.

Demand for water varies depending on climate zone and intensity of use. Typical Projects in Frames 6 through 9, where temperatures are generally higher than on the coastal side of the Santa Monica Mountains, would likely require greater amounts of water for landscaping. Conversely, projects in Frames 1 and 2 would be expected to demand less water due to the cooling effect of coastal breezes. However, all Typical Projects, regardless of where they are located along the LA River, would not be expected to demand substantial amounts of water such that demand would exceed supply. Water conservation measures in effect in the 18 different jurisdictions through which the LA River passes would minimize any localized demands for water.

During specific project development, the Design Guidelines include recommendations to identify existing utilities and review applicable codes, which may include, but are not limited to, Public Works and/or American Public Works Association Standard Plans, LACFCD Code, Municipal Codes (including the County Code for projects in unincorporated County areas), U.S. Army Corps of Engineers Policy, LID Ordinance and Manual, Los Angeles County Department of Recreation and Parks Guidelines, United States Green Building Council's Leadership in Energy and Environmental Design, United States Department of Energy Better Buildings Initiative, Energy Star, Dark Sky, Cradle-to-Cradle, and Green Globes. In addition, all projects would comply with the policies in the applicable water/resource management plans regarding water conservation.

The majority of water used for irrigation would likely be recycled water. Conservation efforts throughout the watershed have resulted in a reduction of the amount of wastewater going to the treatment plants. This has, in turn, resulted in a decrease in the amount of recycled water available to potential users. Decreased wastewater flows in LACSD's service areas have affected effluent production at the water reclamation plants, resulting in less recycled water being available for reuse in recent years (LACSD 2018). Cities in the study area that utilize LACSD recycled water include Bell Gardens, Compton, Cudahy, Downey, Huntington Park, Long Beach, Lynwood, Paramount, South Gate, and Vernon.

A number of recycled water distribution projects throughout LACSD's service area are in various stages of assessment or development to make use of up to an estimated 52,600 AFY of the remaining recycled water currently produced but not yet beneficially reused, with the possibility of another 16,600 AFY of effluent from the Joint Water Pollution Control Plant receiving additional treatment prior to reuse (LACSD 2018). There are several other potential reuse projects that are much more conceptual, including the LBWD master plan and CBMWD expansion projects, the latter of which has several projects in its Capital Improvements Plan for the near term. The Cities of Bell Gardens, Lynwood, and South Gate are collaborating with CBMWD to expand CBMWD's existing system into their cities to supply an estimated 236 AFY of recycled water to irrigate a number of urban irrigation

sites. Several large-scale water recycling projects involving groundwater replenishment continue to be investigated, including the MWD Regional Recycled Water Advanced Purification Center at the Joint Water Pollution Control Plant, the CBMWD Distribution System Storage Project, and the Downey/Cerritos Advanced Treatment Plant For Recharge (LACSD 2018). These ongoing efforts and projects are anticipated to increase the availability and reliability of recycled water for the foreseeable future.

Conservation efforts, including water-sensing turf, water-efficient nozzles, water-sensing other, drip sprinklers, and efficient nozzles, could reduce landscape water use up to 50 percent (Pacific Institute 2013).

The following recommended Design Guidelines would be implemented as applicable and feasible:

- County LID Standards
- On-site water retention, detention, and filtration
- Capture of 100 percent of on-site rainfall for the 85 percent rain event
- Greywater and rainwater reuse
- Low-flow water fixtures

The estimated 15,520 gallons per day (without water conservation or low-flow plumbing fixtures) compares to the approximately 1.5 billion gallons per day of water demand estimated by MWD in 2020 and 0.2 billion gallon per day in 2040. Drought-tolerant landscaping and low-flow water fixtures would reduce the demand for water as well as minimize or avoid runoff. While the Multi-Use Trails and Access Gateways Typical Project would generate up to 1,000 visitors per day, the additional visitors (compared to the 500 for the Common Elements Typical Project) would be using the trails themselves, which would not demand water other than for landscape irrigation and an occasional water fountain and restroom use. Therefore, the Multi-Use Trails and Access Gateways Typical Project would not be expected to demand a substantial amount of water over and above what was calculated for the Common Elements Typical Project. Conservatively estimating a 20 percent increase in demand due to the trails component, and assuming no water-conservation measures or low-flow plumbing fixtures are utilized, this would yield a water demand of approximately 18,624 gallons per day. Compared to the 0.2–1.5 billion gallons per day of water demand estimated by MWD through 2040, this is a nominal amount that would not be expected to significantly affect water supply. Therefore, operation of the Common Elements and Multi-Use Trails and Access Gateways Typical Projects would not result in an insufficiency in water supply.

Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

Impacts would be less than significant. No mitigation is required.

2020 LA River Master Plan Kit of Parts

The Common Elements Typical Project analyzed above could be implemented in whole or as a combination of its individual elements with all the KOP categories discussed below. Therefore, for potential impacts of the Common Elements Typical Project, see above. The impact discussion below focuses on specific KOP categories only.

KOP Categories 1 through 6

Construction

Construction activities for KOP Categories 1 through 6 would be similar to those discussed for the Multi-Use Trails and Access Gateways Typical Project above. Construction equipment and activities would be similar, mainly differentiated by size of the site. Larger projects such as bridges would likely involve the use of larger cranes and other equipment. Construction would demand water but it is not possible to quantify the specific water infrastructure that would be required for subsequent projects under the KOP categories due to their unknown location, size, and extent. Construction equipment would be generally diesel powered, and contractors would be required to comply with local, regional, and State construction water conservation ordinances. All projects would comply with general plan policies, applicable State or local regulations, and strategies and policies contained in urban water/resource management plans as identified for the Common Elements Typical Project.

Subsequent projects under the KOP categories include a variety of construction activities ranging from trail modifications to development of facilities, habitat corridors, bridges, platforms, crossings, channel diversions, floodplain reclamation, off-channel land development, and channel access ramps anywhere in the study area. Despite the potential size and location of projects under KOP Categories 1 through 6, it is not anticipated that construction would demand water in excess of supply, especially in light of the overall considerable regional water demand.

Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

Impacts would be less than significant. No mitigation is required.

KOP Categories 1 through 3

Operations

It is not anticipated that components of KOP Categories 1 through 3 and KOP Category 5 would result in a significant use of water such that demand would exceed supply. Channel modification projects could involve recreational use in the form of amphitheaters, which would not have associated restroom facilities and would not require utilities other than electricity for lighting and possibly sound. Channel modifications such as terraced bank, check dams and deployable barriers, levees, armored channels/vertical walls, daylighted storm drains, removed/added concrete, bridge

pier modifications, channel texturing/grooving/smoothing, and installation of access ramps would not be anticipated to result in demand for water during operation.

Amphitheaters would not require potable water and there would be no impact on water supply. Inclusion of crossings and platforms is a recreational use that would not include utility fixtures other than path or interior lighting; no restroom facilities would be included in this KOP category. It is not expected that crossings and platform operation would result in a substantial demand for water. Lastly, operation of channel modifications would not require water.

Impacts would be less than significant for operation of subsequent projects under KOP Category 1 through KOP Category 3.

Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

Impacts would be less than significant. No mitigation is required.

KOP Category 4

Operations

Operation of diversion projects would not involve an increase in demand for water; they are simply diversion projects and involve no recreational use except for minor educational uses during dry seasons. Goal 8 of the *2020 LA River Master Plan* is to improve local water supply reliability.

Subsequent projects that strategically capture and treat flows before they reach the river would help expand water supply opportunities in the watershed and along the river corridor and could also improve water quality. Diverted water could be used to enhance habitat, support recreation, or supply water for municipal and industrial uses. Therefore, projects under KOP Category 4 are anticipated to improve water supply reliability.

Impact Determination

No impacts would occur.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

No impacts would occur. No mitigation is required.

KOP Category 5

Operations

Floodplain reclamation (KOP Category 5) could include recreation fields and other recreational uses, which would require the use of water. However, many new recreational fields could use artificial turf. Synthetic fields offer many advantages over natural turf fields, which require a significant amount of maintenance, chemical fertilizers, and water. However, synthetic fields could interfere with groundwater recharge and therefore would not be beneficial for use in KOP Category 5 projects. While recreational fields would require water for irrigation, they would be designed to contribute to groundwater recharge or floodplain reclamation. Similar to the Typical Projects, floodplain reclamation projects under KOP Category 5 would be accounted for as planned land uses in the various resource management plans prepared by the various jurisdictions and utility providers along the LA River.

Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

Impacts would be less than significant. No mitigation is required.

KOP Category 6

Operations

As noted, numerous resource master plans are applicable to the study area that consider planned growth and zoning to ensure adequate provision of water into the future. Preparation of a Utilities Plan during the design phase would identify insufficiencies in water supply versus demand and may implement appropriate mitigation measures as identified above. Similar to the Typical Projects, growth under KOP Category 6 that could result in increased demand for water has been accounted for in the various resource management plans of the service providers and municipalities along the LA River. SSB 610 requires that water supply assessments occur early in the land use planning process for all large-scale development projects (refer to thresholds identified in Section 3.18.3.2). In the absence of any project-specific, site-specific, and design-specific information at this program-level analysis, it is not feasible to prepare a water supply assessment. Because of the larger extent of KOP Category 6, there would be potentially significant impacts with regard to sufficient water supply.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

For all KOP Category 6 subsequent projects that meet the thresholds of SB 610 (for example, a residential development of more than 500 dwelling units or a development equivalent to a 500-

dwelling unit subsequent project), the implementing agency would implement the following mitigation measure:

Mitigation Measure UTIL-2: Prepare a Water Supply Assessment.

The implementing agency will prepare a water supply assessment in accordance with the requirements of SB 610.

Significance after Required Mitigation

Impacts would be significant and unavoidable.

Overall 2020 LA River Master Plan Implementation

Construction and Operations

The specific location or size of subsequent projects under the *2020 LA River Master Plan* is not currently known. Considering the overall *2020 LA River Master Plan* includes 107 projects that would range in size from up to 3 acres/1 mile to more than 150 acres/10 miles in size, and that most of them (85) would be of smaller size (3 acres/1 mile), it is reasonable to assume that for larger projects, insufficiencies in utilities could occur that would require the expansion or construction of new facilities, which could, in turn, result in significant environmental impacts. Because it is unknown the location and extent of projects that could be proposed under any of the KOP categories, and whether site-specific mitigation could be implemented to minimize or avoid impacts, water shortages could occur where demand would exceed supply. Each project site will require evaluation to determine whether insufficiencies in utilities exist. Construction impacts for all projects would be less than significant with mitigation. For operation, projects implemented under KOP Category 4 and KOP Category 5 would result in a beneficial impact on water supply. For KOP Category 5 and KOP Category 6 under the *2020 LA River Master Plan*, implementation of mitigation would reduce the level of impact, but not necessarily to less-than-significant levels. Therefore, the impact would be significant and unavoidable.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Apply the following mitigation measure, which is described above.

Mitigation Measure UTIL-2: Prepare a Water Supply Assessment.

Significance after Required Mitigation

Impacts would be significant and unavoidable.

Impact 3.18(c): Would the proposed Project result in a determination by the wastewater treatment provider that serves or may serve the Project that it does not have adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?

Typical Projects

Common Elements and Multi-Use Trails and Access Gateways

Construction

In Los Angeles County the Sanitary Sewer Network covers approximately 824 square miles and encompasses 78 cities and unincorporated County areas. There are approximately 9,500 miles of tributary sewers that are owned and operated by the cities and County. The tributary sewers discharge into the LACSD, City of Los Angeles, and Las Virgenes Municipal Water Districts collection system for treatment.

The proposed project area is served by five different sanitation districts: LASAN, BWP, GWP, LACSD, and LBWD (see Figure 3.18-4). Each of these entities conveys millions of gallons of wastewater each day. Construction of the Typical Projects would not result in any generation of wastewater. Chemical toilets would be provided on all construction sites and no connection to the sewer system would be made. There would be no generation of wastewater during construction of the Typical Projects.

Impact Determination

No impacts would occur.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

No impacts would occur. No mitigation is required.

Operations

The Typical Projects would include restroom facilities and could also include cafés, both of which would generate wastewater. Generally, an average 80 percent of water demand becomes wastewater, although this can increase to 90 percent during wet weather (Vallecitos Water District 2010). Based on the estimated water demand calculated under Impact 3.18(b), it is estimated that approximately 12,416 gallons of wastewater would be generated per day by a Common Elements Typical Project and 14,611 gallons of wastewater would be generated per day by a Multi-Use Trails and Access Gateways Typical Project. Wastewater treatment facilities analyze growth projections from SCAG when planning future infrastructure needs. Operation of Typical Projects would not result in increased population growth that would change the growth projections from SCAG (please refer to Section 3.13, *Population and Housing*, for a detailed analysis of population growth). Through hydraulic condition assessment, population forecast, and modeling, various districts identify the current capacity needs, predict future requirements, and develop capital improvement projects to address them. When the peak flow in a sewer reaches a predetermined level, it usually triggers a planning study that is initiated in time to ensure that additional capacity is provided to meet future

demands. These systems have remaining capacity and would be expected to be able to accommodate the minimal amount of wastewater that would be generated by operation of the Typical Projects.

It would not be anticipated that these project components would generate substantial amounts of wastewater such that demand for wastewater treatment would exceed capacity of the several wastewater treatment facilities that exist in the County: Hyperion, Terminal Island, and Joint Water Pollution Control Plant. The Hyperion Water Treatment Plant alone has a capacity of 450 mgd. These facilities have remaining capacity and would be expected to be able to accommodate the minimal amount of wastewater that would be generated by operation of the Typical Projects.

Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

Impacts would be less than significant. No mitigation is required.

2020 LA River Master Plan Kit of Parts

The Common Elements Typical Project analyzed above could be implemented in whole or as a combination of its individual elements with all the KOP categories discussed below. Therefore, for potential impacts of the Common Elements Typical Project, see above. The impact discussion below focuses on specific KOP categories only.

KOP Categories 1 through 6

Construction

Similar to the Typical Projects, construction of the components under KOP Categories 1 through 6 would not generate significant amounts of wastewater, if any. It is anticipated that chemical toilets would be used on all construction sites and there would be no wastewater conveyance to the various treatment plants.

Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

Impacts would be less than significant. No mitigation is required.

KOP Categories 1 through 3 and KOP Category 5

Operations

It would not be anticipated that projects under KOP Categories 1 through 5 would generate substantial amounts of wastewater such that demand for wastewater treatment would exceed capacity of the several wastewater treatment systems that exist in the County: Hyperion, Terminal Island, and Joint Water Pollution Control Plant. The recreational uses of multi-use trails, channel modifications, and crossings and platforms would not generate substantial amounts of wastewater, as they would not include restroom facilities. KOP Category 5 could include recreation fields, which, if restroom facilities are provided, could result in increased generation of wastewater. However, as noted for the Common Elements Typical Project, recreational uses do not generate substantial amounts of wastewater even with restroom use. The other components of KOP Category 5 would not generate wastewater. It is anticipated that, given the capacity of the existing wastewater treatment facilities, wastewater flows from projects under KOP Category 5 could be accommodated by existing facilities.

Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

Impacts would be less than significant. No mitigation is required.

KOP Category 4

Operations

Channel diversion projects, which would include pumps, diversion pipe/tunnel/channel, overflow weirs, underground gallery, side channel, storm drain interceptors, and wetlands, would not generate wastewater during operation. Some diversion projects may divert stormwater or dry-weather flows to the sanitary sewer. However, it is not anticipated there would be a substantial enough number of projects that divert stormwater to the sewer system to materially affect wastewater conveyance or treatment capacity.

Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

Impacts would be less than significant. No mitigation is required.

KOP Category 6

Operations

KOP Category 6 could result in a wide variety of projects, many of which would generate wastewater. It should be noted that one of the potential KOP Category 6 design components is a water treatment facility, which would not generate substantial amounts of its own wastewater and would result in an increase in wastewater treatment capacity, a beneficial impact. Because the location, size, and extent of these projects are unknown, it cannot be quantified how much wastewater would be generated by an individual project under KOP Category 6. Wastewater generation could exceed the capacity of existing wastewater treatment facilities or local conveyance systems.

Through hydraulic condition assessment, population forecast, and modeling, various districts identify the current capacity needs, predict future requirements, and develop capital improvement projects to address them. When the peak flow in a sewer reaches a predetermined level, it usually triggers a planning study that is initiated in time to ensure that additional capacity is provided to meet future demands. However, it is possible that local sewer capacity could be constrained such that additional wastewater could not be accommodated.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Apply the following mitigation measure, which is described above.

Mitigation Measure UTIL-1: Prepare and Implement Utilities Plan.

Significance after Required Mitigation

Impacts would be significant and unavoidable.

Overall 2020 LA River Master Plan Implementation

Construction and Operations

There would be no significant impacts on wastewater capacity as a result of the Typical Projects or components of KOP Categories 1 through 5. The specific location or size of subsequent projects under the *2020 LA River Master Plan* is not currently known. Considering the overall *2020 LA River Master Plan* includes 107 projects that would range in size from up to 3 acres/1 mile to more than 150 acres/10 miles in size, and that most of them (85) would be of smaller size (3 acres/1 mile), it is reasonable to assume that for larger projects under KOP Category 6, insufficiencies in utilities could occur that would require the expansion or construction of new facilities, which could, in turn, result in significant environmental impacts. However, operational impacts under KOP Category 6 could be significant. Because it is unknown the location and extent of projects that could be proposed under KOP Category 6, and whether site-specific mitigation could be implemented to minimize or avoid impacts, there could be insufficient wastewater capacity to serve the Project. Each project site will require evaluation to determine whether insufficiencies in wastewater infrastructure exist. Implementation of mitigation would reduce the level of impact, but not necessarily to less-than-significant levels. Therefore, the impact would be significant and unavoidable.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Apply the following mitigation measure, which is described above.

Mitigation Measure UTIL-1: Prepare and Implement Utilities Plan.

Significance after Required Mitigation

Impacts would be significant and unavoidable.

Impact 3.18(d): Would the proposed Project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Typical Projects

Common Elements

Construction

The California Integrated Waste Management Act of 1989 and its subsequent amendments required all California cities and counties to implement programs by 2000 that would reduce, recycle, or compost at least 50 percent of the quantity of wastes produced. CalRecycle, formerly called California Integrated Waste Management Board, is the State entity that administers the act. To facilitate the County's compliance with the waste reduction mandate, projects implemented by the County are required to comply with the County's C&D debris recycling specifications and submit reports to Public Works' Environmental Programs Division detailing the volume of debris generated and the percentages of debris that are recycled and disposed in landfills.

The U.S. EPA-approved Trash Total Maximum Daily Loads (TMDLs) for the LA River Watershed 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 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 LA River Watershed Trash TMDLs (for further discussion of TMDL requirements, refer to Section 3.9, *Hydrology and Water Quality*).

All of the18 jurisdictions along the LA River contain policies in their general plans that address reduction of solid waste. During construction, a Common Elements Typical Project would comply with all State and local standards and solid waste reduction goals. Demand for landfill capacity is continually evaluated by the County through preparation of the Los Angeles County Integrated Waste Management Plan Annual Reports.

As detailed above, construction of a Common Elements Typical Project is not anticipated to result in substantial generation of solid waste that would be in excess of State or local standards or the capacity of local infrastructure. Waste-reduction techniques are incorporated into individual integrated resource management plans and would be expected to include reuse and diversion of materials in the waste stream from landfill disposal, such as through recycling, composting, transformation, and anaerobic digestion. The Design Guidelines contain recommended best practices for construction of river pavilions, which include recycling construction waste. During construction, projects would comply with all applicable local and State waste reduction required measures. Therefore, impacts would be less than significant.

Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

Impacts would be less than significant. No mitigation is required.

Operations

During operations, a Common Elements Typical Project would include trash and recycling elements; trash and recycling receptacles would be placed on site with adequate signage. Recycling would divert as much waste as possible from landfills. Although trash would be generated by users of a Common Elements Typical Project, the amount of waste produced by a Common Elements Typical Project is not anticipated to be substantial enough to exceed State or local standards or the capacity of local infrastructure. Local, regional, and State ordinances concerning waste reduction and recycling would further reduce the amount of solid waste generated by a Common Elements Typical Project. Green waste from maintenance operations would be composted. Various recycling ordinances would further decrease the amount of solid waste diverted to landfills. Therefore, impacts would be less than significant.

Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

Impacts would be less than significant. No mitigation is required.

Multi-Use Trails and Access Gateways

Construction

Impacts from construction of a Multi-Use Trails and Access Gateways Typical Project would be substantially similar to the impacts identified for a Common Elements Typical Project, as similar

construction equipment and activities would occur. Contractors would comply with local, regional, and State regulations concerning construction debris diversion. Construction of a Multi-Use Trails and Access Gateways Typical Project is not anticipated to result in substantial generation of solid waste that would be in excess of State or local standards or the capacity of local infrastructure. Waste-reduction techniques are incorporated into individual resource management plans (such as integrated resource management plans) and would be expected to include reuse and diversion of materials in the waste stream from landfill disposal. Therefore, impacts would be less than significant.

Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

Impacts would be less than significant. No mitigation is required.

Operations

Recreational use of trails and access gateways would not be expected to result in generation of substantial amounts of solid waste. Trash and recycling receptacles would be strategically placed with easy to understand educational signage to accommodate disposal needs of users of the trails and access gateways. The Common Elements Typical Project components, i.e., restroom facilities, cafés, and trails, that would be included in a Multi-Use Trails and Access Gateways Typical Project would not be anticipated to generate substantial amounts of solid waste that would exceed the capacity of existing landfills, as described above in the analysis for the Common Elements Typical Project. Projects would comply with local standards in each jurisdiction. Green waste from maintenance operations would be composted. Various recycling laws and ordinances would further decrease the amount of solid waste disposed of in landfills. Therefore, impacts related to solid waste generation during operations of Multi-Use Trails and Access Gateways Typical Project would be less than significant.

Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

Impacts would be less than significant. No mitigation is required.

2020 LA River Master Plan Kit of Parts

The Common Elements Typical Project analyzed above could be implemented in whole or as a combination of its individual elements with all the KOP categories discussed below. Therefore, for

potential impacts of the Common Elements Typical Project, see above. The impact discussion below focuses on specific KOP categories only.

KOP Categories 1 through 5

Construction

Solid waste would be generated during construction of projects under KOP Categories 1 through 5, varying in amount by site size and existing structures. There are state, regional, and local ordinances and regulations focused on diversion of solid waste from landfills. Contractors would comply with all of these regulations regarding construction waste to minimize the amount of debris sent to landfills. The Los Angeles County Board of Supervisors adopted the C&D Debris Recycling and Reuse Ordinance in January 2005, which requires at least 65 percent of all debris generated by C&D projects in unincorporated County areas to be recycled or reused. Best management practices recommended in the *2020 LA River Master Plan* include recycling of construction waste. While the landfills serving Southern California have remaining capacity to accommodate solid waste that is not diverted from landfills, other projects in the County generate solid waste that contribute to landfill capacity. Because projects under KOP Categories 1 through 5 would comply with regulations and ordinances related to solid waste diversion, substantial amounts of solid waste would not be generated during construction of larger projects that could affect remaining landfill capacity.

Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

Impacts would be less than significant. No mitigation is required.

Operations

Recreational uses of KOP Categories 1 through 5 would not generate substantial amounts of solid waste such that capacities of existing landfills would be exceeded. Channel modifications (except for amphitheaters, a recreational use) and diversion projects would not generate solid waste during operation and could incorporate a trash capture element during operation. Landfills have remaining capacity and would be expected to be able to accommodate the minimal amount of solid waste that would be generated by operation of projects under KOP Categories 1 through 5.

As discussed for the Multi-Use Trails and Access Gateways Typical Project, projects would comply with local standards in each jurisdiction. Various state, regional, and local recycling ordinances would further decrease the amount of solid waste disposed of in landfills. Green waste from maintenance operations would be composted.

Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

Impacts would be less than significant. No mitigation is required.

KOP Category 6

Construction

Subsequent projects under KOP Category 6 could be substantially larger than other KOP categories, depending on project elements such as affordable housing or museums, and could result in substantial generation of solid waste during construction depending on site location. Because the location of these projects is unknown, it is also not known how much construction waste would be generated, which would depend on existing conditions such as structures or paving that require removal prior to redevelopment. Because the extent of the subsequent projects is unknown, KOP Category 6 could result in substantial generation of solid waste during construction that could affect landfill capacity.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Mitigation Measure UTIL-3: Recycle Construction Materials and Reduce Waste.

Implementing agencies will require 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, according to local, regional, and State regulations and ordinances. Implementing agencies will incentivize construction contractors with waste minimization goals in bid specifications.

Significance after Required Mitigation

Impacts would be less than significant for later activities when carried out by the County.

Impacts would be significant and unavoidable for later activities when not carried out by the County.

Operations

Operation of the larger projects envisioned for KOP Category 6 could result in substantial amounts of solid waste unless requirements are included in each project for diversion of solid waste. All projects under KOP Category 6 would comply with state, regional, and local waste diversion regulations and ordinances, and would be expected to include provisions for reuse and diversion components such as recycling and composting. However, without implementation of specific measures to ensure reduction in operational solid waste, the impact would be potentially significant.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Mitigation Measure UTIL-4: Divert Solid Waste.

For every project under KOP Category 6, the implementing agency will include one or more of the following actions to reduce the amount of solid waste generated from operation of the Project:

- Provide on-site recycling containers both outside and indoors on each floor of the development.
- Ensure that all contracts for landscape maintenance include provisions for recycling/ composting of green waste.
- Provide for regular collection of recyclable material and green waste for diversion from landfill.
- Include signage throughout the project site encouraging the reuse and recycling of waste.
- Provide incentives for project operators to reduce and divert solid waste from operation of the project; these incentives could include rebates to property owners for identified volume levels of recycled waste per development and innovative changes to standard operating procedures.

Significance after Required Mitigation

Impacts would be less than significant for later activities when carried out by the County.

Impacts would be significant and unavoidable for later activities when not carried out by the County.

Overall 2020 LA River Master Plan Implementation

Construction and Operations

Implementation of the *2020 LA River Master Plan* is not anticipated to result in substantial generation of solid waste that would be in excess of State or local standards or the capacity of local infrastructure. Waste-reduction techniques are incorporated into individual resource management plans and would be expected to include reuse and diversion of materials in the waste stream from landfill disposal. The Design Guidelines contain recommended best practices for construction of river pavilions, which include recycling construction waste. During construction and operations, projects would comply with all applicable local and State waste reduction measures. Furthermore, the Los Angeles County Board of Supervisors adopted the C&D Debris Recycling and Reuse Ordinance in January 2005, which requires at least 65 percent of all debris generated by C&D projects in unincorporated County areas to be recycled or reused.

Implementation of the *2020 LA River Master Plan* is not anticipated to generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Mitigation Measures UTIL-3 and UTIL-4 would be implemented for KOP Category 6, which would reduce the impacts to less-than-significant levels. Therefore, after mitigation, impacts would be less than significant.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Apply the following mitigation measures, which are described above.

Mitigation Measure UTIL-3: Recycle Construction Materials and Reduce Waste .

Mitigation Measure UTIL-4: Divert Solid Waste.

Significance after Required Mitigation

Impacts would be less than significant for later activities when carried out by the County.

Impacts would be significant and unavoidable for later activities when not carried out by the County.

Impact 3.18(e): Would the proposed Project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Typical Projects

Common Elements

Construction

As discussed above for Impact 3.18(d), during construction, Typical Projects would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. These would include compliance with the California Integrated Waste Management Act, AB 75, and the California Solid Waste Reuse and Recycling Access Act, as well as individual municipalities' ordinances concerning reduction of solid waste.

All of the 17 municipalities and unincorporated County areas (18 total jurisdictions) along the LA River contain policies in their general plans that address reduction of solid waste. Waste-reduction techniques are incorporated into individual resource management plans and would be expected to include reuse and diversion of materials in the waste stream from landfill disposal. The Design Guidelines contain recommended best practices for construction of river pavilions, which include recycling construction waste. During construction, a Common Elements Typical Project would be required to comply with all State and local standards and solid waste reduction goals. Design Guidelines recommend recycling construction waste to minimize waste disposed of in landfills. While these recommendations are not mandatory, compliance with local ordinances (e.g., the C&D Debris Recycling and Reuse Ordinance) minimizing and diverting construction waste would be expected to ensure that impacts would be less than significant.

Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

Impacts would be less than significant. No mitigation is required.

Operations

As discussed above for Impact 3.18(d), during operations, Typical Projects would include diversion and disposal elements. Reuse, recycling, composting, and other diversion methods would divert as much waste as possible from landfills. The Common Elements Typical Projects would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. These would include compliance with the California Integrated Waste Management Act, AB 75, and the California Solid Waste Reuse and Recycling Access Act, as well as individual municipalities' ordinances concerning reduction of solid waste. Therefore, impacts would be less than significant during operations.

Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

Impacts would be less than significant. No mitigation is required.

Multi-Use Trails and Access Gateways

Construction

Impacts from construction of a Multi-Use Trails and Access Gateways Typical Project would be substantially similar to the impacts identified for the Common Elements Typical Project. Construction of a Multi-Use Trails and Access Gateways Typical Project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. Therefore, impacts would be less than significant.

Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

Impacts would be less than significant. No mitigation is required.

Operations

Impacts from operations of a Multi-Use Trails and Access Gateways Typical Project would be substantially similar to the impacts identified for the Common Elements Typical Project. Restroom facilities, cafés, and trails that would be included in this Typical Project would generate solid waste.

The Multi-Use Trails and Access Gateways Typical Project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste during operations.

Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

Impacts would be less than significant. No mitigation is required.

2020 LA River Master Plan Kit of Parts

The Common Elements Typical Project analyzed above could be implemented in whole or as a combination of its individual elements with all the KOP categories discussed below. Therefore, for potential impacts of the Common Elements Typical Project, see above. The impact discussion below focuses on specific KOP categories only.

KOP Categories 1 through 6

Construction

Contractors constructing subsequent projects under the KOP categories would be required to comply with all State and local standards and solid waste reduction regulations.

Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

Impacts would be less than significant. No mitigation is required.

Operations

Recreational facilities and trails, crossings and platforms, and diversions would generate solid waste. Channel modifications (with the exception of amphitheater use) and diversion projects would not generate solid waste. KOP Categories 1 through 6 would comply with federal, state, and local management and reduction statutes and regulations related to solid waste during operations. These would include compliance with the California Integrated Waste Management Act, AB 75, and the California Solid Waste Reuse and Recycling Access Act, as well as individual municipalities' ordinances concerning reduction of solid waste.

Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

Impacts would be less than significant. No mitigation is required.

Overall 2020 LA River Master Plan Implementation

Construction and Operations

Projects resulting from implementation of the *2020 LA River Master Plan* would be required to comply with federal, state, and local management and reduction statutes and regulations related to solid waste. These would include compliance with the California Integrated Waste Management Act, AB 75, and the California Solid Waste Reuse and Recycling Access Act, as well as individual municipalities' ordinances concerning reduction of solid waste. Therefore, the impact would be less than significant.

Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

Impacts would be less than significant. No mitigation is required.

Cumulative Impacts

The geographic context for an analysis of cumulative impacts on utilities and service systems would collectively be the service areas of the utility providers, which would extend outside the study area boundaries. A description of the regulatory setting and approach to cumulative impacts analysis is provided in Section 3.0.2.

Criteria for Determining Significance of Cumulative Impacts

The proposed Project would have the potential to result in a cumulatively considerable impact on utilities and service systems, if, in combination with other projects within the greater Los Angeles region, it would require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects; have insufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years; 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; generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or not comply

with federal, state, and local management and reduction statutes and regulations related to solid waste.

Cumulative Condition

Cumulative growth and development, as well as implementation of transportation infrastructure improvements, would result in additional demands on utilities and services, such as water supplies, wastewater treatment, and solid waste disposal. As the County continues to grow, there will be a continued need for increased landfill capacities. A potential for cumulative impacts for solid waste management exists on a countywide level. Similarly, cumulative impacts could occur for wastewater treatment facilities for wastewater flows.

Due to planned transportation projects and anticipated development identified in the County's and individual jurisdictions' general plans, as well as the 2020 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), there would be potential for construction of new stormwater drainage facilities or expansion of existing facilities to be needed. The need for new or expanded facilities for plan projects in combination with other large projects outside the region—such as wastewater projects in adjacent counties or transportation projects that connect with projects to outside areas—could result in significant impacts. As such, there would be a cumulatively significant impact with regard to stormwater drainage capacity.

Drought, pollution, population growth, and land use affect the quantity and quality of local and regional water supplies. The climate in Los Angeles County is characterized by extended periods of dry weather and varying levels of rainfall, which range from an average of 27.5 inches per year in the San Gabriel Mountains to 7.8 inches in the Antelope Valley. The overall demand for water is projected to increase dramatically to 2035, and the cost, quality, and availability of water will affect future development patterns. (Los Angeles County 2015.)

The 2020 RTP/SCS would result in significant cumulative impacts on sufficient water supplies. The volume of water and water delivery infrastructure currently available within the SCAG region would not be sufficient to meet the future multiple dry year or average year water demand in 2040. Increases in population could require or result in the relocation or construction of new or expanded water facilities outside of the region. As such, the *2020 LA River Master Plan* would result in a cumulatively considerable impact. Development attributed to land use strategies would also increase water demand. Due to the uncertainties associated with water supply and management; this impact is considered cumulatively considerable. (SCAG 2020.)

Build-out of the County's and individual jurisdictions' general plans would be expected to contribute incrementally with related projects in the County to significant cumulative impacts on landfill capacity. Existing landfills are currently operating at 80 percent capacity across the SCAG region. Per capita generation of solid waste is decreasing across the SCAG region due to increased recycling and compliance with the requirements of AB 939 and other sustainable conservation measures. Additionally, transportation projects and development encouraged by land use strategies would be required to comply with AB 341, in which 75 percent of the waste stream would be recycled by the year 2020. However, the potential to exceed capacity over the planning horizon remains significant.

Cumulative growth and development in the greater Los Angeles region would result in increased consumption of electricity and natural gas. The anticipated power and natural gas demands for the buildout of the County's and individual jurisdictions' general plans, as well as the 2020 RTP/SCS, would be cumulatively significant in the context of future growth elsewhere in Los Angeles County.

A variety of energy conservation measures are being and will continue to be implemented statewide, which will reduce the demand for electricity and natural gas. While population growth will increase the demand for electricity and natural gas, programs for energy-efficiency are planned or have been developed to further increase energy-efficiency. However, despite statewide energy-efficiency programs, the cumulative condition related to electricity and natural gas consumption would be significant. Therefore, there is a cumulative condition with respect to utilities and service systems.

Contribution of the Project to Cumulative Impacts

Under the *2020 LA River Master Plan*, insufficiencies in utilities could occur that would require the expansion or construction of new facilities, which could, in turn, result in significant environmental impacts. Extension of water and other utility infrastructure could be required for the proposed Project, which would likely include some trenching activities. These activities would not result in a significant environmental impact. Construction debris would be generated but would be recycled according to state and local regulations, therefore not having a significant impact on landfill capacity. Solid waste generation during operation would be minimal and would not make a considerable contribution to landfill capacity shortages.

Construction activities under the *2020 LA River Master Plan* would result in ground disturbance, which may create the potential for erosion to occur. Temporary best management practices (BMPs)—such as silt fences, straw waddles, sediment traps, gravel sandbag barriers, or other effective BMPs—would be implemented to control runoff and erosion during construction activities. Implementation of erosion and sediment control BMPs would prevent soil erosion and sedimentation from exposed soils. Furthermore, the *2020 LA River Master Plan* would be required to comply with the County's low-impact development standards. The proposed Project may also include storm drainage improvements, particularly with floodplain and channel improvements. Therefore, the Project would not result in a cumulatively considerable contribution to impacts on storm drainage infrastructure.

With regard to water supply, during construction, water would be used primarily for pouring and mixing concrete as well as mitigating fugitive dust impacts associated with construction activities. Construction impacts for all projects would be less than significant with mitigation. For operation of the *2020 LA River Master Plan*, implementation of Mitigation Measure UTIL-1 would reduce the level of impact, but not necessarily to less-than-significant levels. Therefore, the proposed Project would result in a cumulatively considerable contribution to impacts on water supplies.

Electricity consumption during construction activities would be minimal, and there would be no consumption of natural gas. Operations would require electricity for lighting; however, energy-conservation measures as outlined above would be implemented. Minimal amounts of natural gas would be consumed during operation of the *2020 LA River Master Plan*. The proposed Project would not make a cumulatively considerable contribution to cumulative impacts on electricity and natural gas. For a comprehensive discussion regarding cumulative impacts related to electricity and natural gas, see *Cumulative Impacts* in Section 3.5, *Energy*.