

## 5. Environmental Analysis

### 5.18 UTILITIES AND SERVICE SYSTEMS

This section of the program EIR evaluates the potential for implementation of the SUP to impact public utilities and service systems in the District. This section discusses plans and policies from several jurisdictional agencies and LAUSD standard conditions, guidelines, specifications, practices, policies, and project design features (LAUSD Standards), along with the existing utilities and drainage conditions throughout the SUP area, and possible environmental impacts that may occur during future phases of the SUP and site-specific projects implemented under the SUP.

#### TERMINOLOGY

Terms in *italics* are other entries in this section.

**Acre-Foot (af).** An **acre-foot** is a unit of volume—approximately 325,851 gallons—commonly used in the United States in reference to large-scale water resources, such as reservoirs, aqueducts, canals, sewer flow capacity, and river flows.

**Acre-Foot per Year (afy):** A flow rate used to measure water and wastewater flows; one acre-foot per year is approximately 892.2 gallons per day or 0.62 gallons per minute.

**Megawatt (MW):** one million watts.

**Catch Basin:** a basin underneath a storm drain inlet designed to remove some pollutants, including trash and sediment.

**Debris Basin:** a basin impounded by a dam and designed to catch debris flowing down a waterway during flood flows.

**Gigawatt (GW):** one billion watts

**Primary [Wastewater] Treatment:** Removal of solids using settling tanks.

**Recycled Water:** *Tertiary-treated wastewater* used for nonpotable uses such as landscape irrigation, industrial uses, and groundwater recharge.

**Secondary [Wastewater] Treatment:** Reduction of organic matter using bacteria and oxygen; followed by further removal of solids.

**Tertiary [Wastewater] Treatment:** filtration of wastewater to remove any solids remaining after the first two phases of treatment.

**Volatile Organic Compounds (VOC):** hydrocarbons and hydrocarbon compounds containing chlorine, bromine, and/or fluorine, that evaporate readily.

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### 5.18.1 Environmental Setting

#### 5.18.1.1 REGULATORY FRAMEWORK

State, regional and local laws, regulations, plans, and guidelines are summarized below. The following regulatory framework discussion does not include all plans and policies that relate to utilities and service systems in the District. Site-specific projects have not been identified, and there may be local jurisdictional plans and policies that are applicable depending on the project site. Specific requirements of these laws, regulations, plans, and guidelines might not be up to date when a proposed site-specific school project undergoes review. Therefore, this section provides a general discussion of the most important plans and policies that apply to SUP-related projects. Although some of these may not directly applicable to the SUP or site-specific projects implemented under the SUP, they are included to assist in identifying potential impacts and significance thresholds. Applicable LAUSD Standards are also listed. See *Applicable Regulations and Standard Conditions* at end of this chapter for those that require District compliance.

#### Water

##### *State*

##### ***California Water Code Sections 10608 et seq.: The Water Conservation Act of 2009***

Senate Bill X7-7 (SB X7-7), the Water Conservation Act of 2009, requires all water suppliers to increase water use efficiency.<sup>1</sup> The **20x2020 Water Conservation Plan**, issued by the Department of Water Resources (DWR) in 2010 pursuant to the Water Conservation Act of 2009, established a water conservation target of 20 percent reduction in water use by 2020 compared to 2005 baseline use. SB X7-7 established requirements for urban water conservation and agricultural water conservation; provisions for urban water conservation are summarized below.

**Urban Water Conservation.** The legislation sets an overall goal of reducing per capita urban water use by 20% by December 31, 2020. The state shall make incremental progress towards this goal by reducing per capita water use by at least 10% by December 31, 2015.

- Each urban retail water supplier shall develop water use targets and an interim water use target by July 1, 2011.
- An urban retail water supplier shall include in its water management plan due July 2011 the baseline daily per capita water use, water use target, interim water use target, and compliance daily per capita water use. The Department of Water Resources, through a public process and in consultation with the California Urban Water Conservation Council, shall develop technical methodologies and criteria for the consistent implementation of this part.
- The Department of Water Resources shall adopt regulations for implementation of the provisions relating to process water.

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<sup>1</sup> <http://www.water.ca.gov/wateruseefficiency/sb7/>.

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- A Commercial, Institutional, Industrial (CII) task force is to be established that will develop and implement urban best management practices for statewide water savings.
- Effective 2016, urban retail water suppliers who do not meet the water conservation requirements established by this bill are not eligible for state water grants or loans.

### *Governor's Drought Declaration*

California Governor Edmund Brown Jr. declared a drought state of emergency on January 17, 2014, asking Californians to reduce water use by 20 percent.<sup>2</sup> The US Department of Agriculture designated 27 California counties, including Los Angeles County, as primary natural disaster areas on January 15, 2014, due to the drought.<sup>3</sup> Average annual rainfall at the Los Angeles Civic Center is 14.41 inches, but the Civic Center received 5.93 inches of rainfall between October 2012 and September 2013, that is, 41 percent of the average during the 2012–2013 water year. Rainfall at the Civic Center between October 2013 and January 2014 was 0.88 inches, only 12 percent of average.<sup>4</sup> The DWR announced on January 31, 2014, that if current dry conditions persist, customers would receive no deliveries from the State Water Project in 2014, except for small carryover amounts from 2013. Deliveries to agricultural districts with long-standing water rights in the Sacramento Valley may be cut 50 percent—the maximum permitted by contract—depending on future snow survey results. Almost all areas served by the SWP have other sources of water, such as groundwater and local reservoirs.<sup>5</sup>

### Wastewater

#### *Federal*

Wastewater treatment before effluent is discharged to Waters of the United States is required by the federal Clean Water Act, United States Code, Title 33, Sections 1251 et seq.<sup>6</sup>

### Solid Waste

#### *State*

Assembly Bill 939 (**Integrated Solid Waste Management Act** of 1989; Public Resources Code 40050 et seq.) established an integrated waste-management system that focused on source reduction, recycling, composting, and land disposal of waste. AB 939 required every California city and county to divert 50 percent of its waste from landfills by the year 2000. Compliance with AB 939 is measured in part by comparing solid waste disposal rates for a jurisdiction with target disposal rates; actual rates at or below target

<sup>2</sup> Office of Governor Edmund G. Brown Jr. 2014, January 17. Governor Brown Declares Drought State of Emergency. <http://gov.ca.gov/news.php?id=18368>.

<sup>3</sup> US Department of Agriculture Farm Services Agency (USDA). 2014, January 15. USDA Designates 27 Counties in California as Primary Natural Disaster Areas. [http://www.fsa.usda.gov/FSA/newsReleases?area=newsroom&subject=landing&topic=edn&newstype=ednewsrel&type=detail&item=ed\\_20140115\\_rel\\_0007.html](http://www.fsa.usda.gov/FSA/newsReleases?area=newsroom&subject=landing&topic=edn&newstype=ednewsrel&type=detail&item=ed_20140115_rel_0007.html).

<sup>4</sup> California Department of Water Resources California Data Exchange Center (DWR). 2014, February 5. Hydrologic Conditions in California (01/01/2014). <http://cdec.water.ca.gov/cgi-progs/reports/EXECSUM>.

<sup>5</sup> California Department of Water Resources (DWR). 2014, January 31. DWR Drops State Water Project Allocation to Zero, Seeks to Preserve Remaining Supplies. <http://www.water.ca.gov/news/newsreleases/2014/013114pressrelease.pdf>.

<sup>6</sup> The federal Clean Water Act is described in further detail in Section 5.9, *Hydrology and Water Quality*, of this DEIR.

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rates are consistent with AB 939. AB 939 also requires California counties to show 15 years of disposal capacity for all jurisdictions in the county or show a plan to transform or divert its waste.

Assembly Bill 341 (Chapter 476, Statutes of 2011) increased the statewide solid waste diversion goal to 75 percent by 2020.<sup>7</sup> The law also mandates recycling for commercial and multifamily residential land uses as well as schools and school districts.

Section 5.408 of the 2013 California Green Building Standards Code (Title 24, California Code of Regulations, Part 11) requires that at least 50 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.<sup>8</sup>

### Electricity and Natural Gas

#### *California Green Building Standards Code*

The 2013 California Green Building Standards Code (CALGreen), California Code of Regulations, Title 24, Part 11, took effect January 1, 2014.

#### *Collaborative for High Performance Schools*

The “Collaborative for High Performance Schools” (CHPS) is a school design standards-setting organization associated with the “Leadership in Energy and Environmental Design” (LEED) group. The District requires that CHPS criteria be incorporated to the extent feasible into its school construction program. CHPS and CHPS criteria are discussed further in Appendix B of this DEIR.

#### *California Public Utilities Commission*

Established in 1911, the California Public Utilities Commission (CPUC) regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies. The commission is organized into several advisory units, an enforcement division, and a strategic planning group. Electricity and natural gas companies are both regulated by the CPUC.

#### *Regulation of Municipal Utilities*

The Los Angeles Department of Water and Power is regulated by the City of Los Angeles Board of Water and Power Commissioners. Municipal utilities are not regulated by the CPUC.

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<sup>7</sup> AB 341 added and amended multiple sections of the California Public Resources Code.

<sup>8</sup> International Code Council (ICC). 2014, March 18. California Green Building Standards Code California Code of Regulations, Title 24, Part 11 (CALGreen). [http://www.ecodes.biz/ecodes\\_support/free\\_resources/2013California/13Green/PDFs/Chapter%205%20-%20Nonresidential%20Mandatory%20Measures.pdf](http://www.ecodes.biz/ecodes_support/free_resources/2013California/13Green/PDFs/Chapter%205%20-%20Nonresidential%20Mandatory%20Measures.pdf).

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### LAUSD

PDF #	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions and Project Design Feature
<b>Standard Conditions</b>				
USS-0 Compliance	Construction waste management	When projects will generate construction and demolition debris	Prior to start of, and during, construction	<p><b>School Design Guide &amp; Specification 01340, Construction &amp; Demolition Waste Management</b> Construction and demolition waste shall be recycled to the maximum extent feasible. LAUSD has established a minimum non-hazardous construction and demolition debris recycling requirement of 75% by weight as defined in Specification 01340, Construction &amp; Demolition Waste Management. (School Design Guide. January 2014)</p> <p>Specification 01340, Construction &amp; Demolition Waste Management includes procedures for preparation and implementation, including reporting and documentation, of a Waste Management Plan for reusing, recycling, salvage or disposal of non-hazardous waste materials generated during demolition and/or new construction (Construction &amp; Demolition (C&amp;D) Waste), to foster material recovery and re-use and to minimize disposal in landfills. Requires the collection and separation of all C&amp;D waste materials generated on-site, reuse or recycling on-site, transportation to approved recyclers or reuse organizations, or transportation to legally designated landfills, for the purpose of recycling salvaging and/or reusing a minimum of 75% of the C&amp;D waste generated. (Specification 01340, Construction &amp; Demolition Waste Management, July 7, 2003)</p>
<b>Project Design Features</b>				
PS-1	Fire protection services	If project involves construction and site plans.	Prior to construction	LAUSD shall: 1) have local fire jurisdictions review and approve all construction and site plans prior to the State Fire Marshall's final approval; and 2) provide a full site plan for the local review, including all buildings, both existing and proposed, fences, drive gates, retaining walls, and other construction affecting Fire Department access, with unobstructed fire lanes for access indicated. Fire watch may be required during modification/replacement of existing systems.
USS-1	Water Supply	If project involves excavation near water lines	During construction	LAUSD shall coordinate with the City of Los Angeles Department of Water and Power or other appropriate jurisdiction and department prior to the relocation or upgrade of any water facilities to reduce the potential for disruptions in service.
USS-2	Solid Waste	If new school is constructed on existing campus	Prior to occupation	The building/school shall meet local ordinance requirements for recycling space. Areas without local ordinances should use the model ordinance developed by the California Integrated Waste Management Board
USS-3	Solid Waste	If new school is constructed on existing campus	During operation	Provide easily accessible area serving the entire school that are dedicated to the collection and storage of materials for recycling including (at a minimum) paper, cardboard, glass, plastics, metals and landscaping waste. There shall be at least one centralized collection point (loading dock), and ability for separation of recyclables where waste is disposed of for classrooms and common areas such as cafeteria's, gyms or multi-purpose rooms.
GHG-1	Water use and efficiency	If project include work on water pumps, valves, piping, and/or tanks.	During school operation	During school operation, LAUSD shall perform regular preventative maintenance on pumps, valves, piping, and tanks to minimize water loss.

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PDF #	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions and Project Design Feature
GHG-2	Water use and efficiency	If projects involve work on landscape irrigation system.	Prior to full operation of irrigation system	LAUSD shall utilize automatic sprinklers set to irrigate landscaping during the morning and evening hours to reduce water loss from evaporation.
GHG-3	Water use and efficiency	If projects involve work on landscape irrigation system.	Prior to full operation of irrigation system	LAUSD shall reset automatic sprinkler timers to water less during cooler months and during the rainy season.
GHG-4	Water use and efficiency	If projects involve work on landscape and/or irrigation system.	Prior to full operation of irrigation system	LAUSD shall develop a water budget for landscape (both non-recreational and recreational) and ornamental water use to conform to the local water efficient landscape ordinance. If no local ordinance is applicable, then use the landscape and ornamental budget outlined by the California Department of Water Resources.
GHG-5	Energy efficiency	If project involves a building construction	Prior to occupancy	LAUSD shall ensure that the time dependent valued energy of the proposed project design is at least 10 percent, with a goal of 20 percent less than a standard design that is in minimum compliance with the California Title 24, Part 6 energy efficiency standards that are in force at the time the project is submitted to the Division of the State Architect.

### 5.18.1.2 WATER PROVISION

#### Water Providers

Water providers by jurisdiction in the LAUSD are listed in Table 5.18-1.

**Table 5.18-1 Water Providers**

Educational Service Center	City	Water Provider
All	Los Angeles <sup>9</sup>	City of Los Angeles Department of Water and Power
North	San Fernando <sup>10</sup>	City of San Fernando Water Department
West	West Hollywood <sup>11</sup>	City of Los Angeles Department of Water and Power City of Beverly Hills Public Works Services Department
	Los Angeles County (Unincorporated): Marina Del Rey	Los Angeles County Waterworks District 29
East	Los Angeles County (Unincorporated): East Los Angeles	California Water Service Company

<sup>9</sup> City of Los Angeles Department of Water and Power. 2014, February 3. Water. [https://www.ladwp.com/ladwp/faces/wcnav\\_externalId/a-w-wqalty?\\_afLoop=13625197479935&\\_afWindowMode=0&\\_afWindowId=5xqwfb3y1\\_35#%40%3F\\_afWindowId%3D5xqwfb3y1\\_35%26\\_afLoop%3D13625197479935%26\\_afWindowMode%3D0%26\\_adf.ctrl-state%3D5xqwfb3y1\\_63](https://www.ladwp.com/ladwp/faces/wcnav_externalId/a-w-wqalty?_afLoop=13625197479935&_afWindowMode=0&_afWindowId=5xqwfb3y1_35#%40%3F_afWindowId%3D5xqwfb3y1_35%26_afLoop%3D13625197479935%26_afWindowMode%3D0%26_adf.ctrl-state%3D5xqwfb3y1_63).

<sup>10</sup> City of San Fernando. 2014, February 3. Water Department. [http://www.ci.sanfernando.ca.us/city\\_government/departments/pubworks/divisions/water.shtml](http://www.ci.sanfernando.ca.us/city_government/departments/pubworks/divisions/water.shtml).

<sup>11</sup> City of West Hollywood. 2014, February 3. Water Conservation. <http://www.weho.org/city-hall/city-departments/public-works/environmental-services/water-conservation>.

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**Table 5.18-1 Water Providers**

Educational Service Center	City		Water Provider
South	Bell <sup>12</sup>		California Water Company Golden State Water Company Maywood Mutual Water Company Tract 349 Water Company Tract 180 Water Company
	Carson <sup>13</sup>		California Water Service Company Golden State Water Company
	Cudahy <sup>14</sup>		Cudahy Water Utility
	Gardena <sup>15</sup>		Golden State Water Company
	Huntington Park <sup>16</sup>		City of Huntington Park Water & Sewer Division
	Lomita <sup>17</sup>		City of Lomita Water Department
	Maywood <sup>18</sup>		Maywood Mutual Water Co. No. 1 Maywood Mutual Water Co. No. 2 Maywood Mutual Water Co. No. 3
	South Gate <sup>19</sup>		City of South Gate Water Division Golden State Water Company
	Los Angeles County (Unincorporated) <sup>20</sup>	West Carson	Los Angeles County Waterworks District 29
		Willowbrook	Sativa Los Angeles County Water District Park Water Company Southern California Water Company
Florence-Graham		Los Angeles County Waterworks District 29	
West Rancho Dominguez		Los Angeles County Waterworks District 29	

Sources: See footnotes for each city.

### 5.18.1.3 EXISTING CONDITIONS

#### Water Supplies

##### *Types of Water Sources*

Water agencies supplying the District have four types of water supply sources:

<sup>12</sup> City of Bell. 2014, February 3. Utility Providers. <http://www.cityofbell.org/?navid=271>.

<sup>13</sup> City of Carson. 2014, February 3. Utilities. <http://ci.carson.ca.us/content/department/utilities.asp>.

<sup>14</sup> City of Cudahy. 2014, February 3. Cudahy Water Utility. <http://www.cudahy-wi.gov/cudahy/residents/water+and+sewer/default.asp>.

<sup>15</sup> City of Gardena. 2014, February 3. Utility Providers. <http://www.ci.gardena.ca.us/departments/PublicWorks/utilityproviders.html>.

<sup>16</sup> City of Huntington Park. 2014, February 3. Water & Sewer Division. <http://www.huntingtonpark.org/index.aspx?nid=76>.

<sup>17</sup> City of Lomita. 2014, February 3. Water Department. <http://www.lomita.com/cityhall/citygov/water/index.html>.

<sup>18</sup> City of Maywood. 2014, February 3. Utilities. [http://www.cityofmaywood.com/index.php?option=com\\_content&view=article&id=59&Itemid=87](http://www.cityofmaywood.com/index.php?option=com_content&view=article&id=59&Itemid=87).

<sup>19</sup> City of South Gate. 2014, February 3. Water/Sewer Service. <http://www.sogate.org/index.cfm/fuseaction/nav/navid/71/>.

<sup>20</sup> Los Angeles County Waterworks Districts. 2014, February 3. Los Angeles County Waterworks Districts. <http://dpw.lacounty.gov/wwd/web/>.

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- Imported Water
  - **From Northern California via the State Water Project.** The delivery capacity of the State Water Project is currently 2.4 million acre-feet annually. The State Water Project has delivered water to 29 water agencies along the route, including the Antelope Valley-East Kern Water Agency, Castaic Lake Water Agency, Metropolitan Water District, and the San Gabriel Valley Municipal Water District. The Metropolitan Water District of Southern California (MWD) wholesales most of the water imported into Southern California by the State Water Project to the MWD's 26 member agencies.
  - **From the Colorado River via the Colorado River Aqueduct:** The 242-mile long Colorado River Aqueduct carries a billion gallons (2,778 acre-feet) of water daily to Southern California. Los Angeles County relies on the Colorado River Aqueduct for some of its water supply. California, along with a number of other states, shares water that is diverted from the Colorado River. Over the past few decades, California has been utilizing more than its allocation of 4.4 million acre-feet of water annually from the Colorado River. Water agencies throughout California, including the Metropolitan Water District, are implementing programs to reduce water drawn from this source to the initial allocation agreement, through water banking, conservation, and recycling. Sold by the MWD to its member agencies.
  - **From the Owens Valley and eastern Sierra Nevada via the Los Angeles Aqueduct:** the 233-mile-long Los Angeles Aqueduct conveys water from the eastern Sierra Nevada and Owens Valley to the City of Los Angeles. Deliveries between July 2009 and June 2010, the latest period for which data are available, were 200,000 acre-feet, or about 65 billion gallons.<sup>21</sup>
- **Groundwater from local groundwater basins.** Groundwater basins are recharged naturally through stormwater and rainfall, and artificially recharged in recharging basins with imported water, stormwater, and recycled water.
- **Recycled Water:** treated and disinfected municipal wastewater. Uses include landscape and agricultural irrigation, groundwater recharge, and industrial uses
- Desalination of ocean water

#### *City of Los Angeles*

#### ***Water Sources***

The Los Angeles Department of Water and Power obtains water supplies from four sources:

- The Los Angeles Aqueduct importing water from the eastern Sierra Nevada

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<sup>21</sup> City of Los Angeles Department of Water and Power (LADWP). Adopted May 3, 2011. Urban Water Management Plan. [http://www.water.ca.gov/urbanwatermanagement/2010uwmps/Los%20Angeles%20Department%20of%20Water%20and%20Power/LADWP%20UWMP\\_2010\\_LowRes.pdf](http://www.water.ca.gov/urbanwatermanagement/2010uwmps/Los%20Angeles%20Department%20of%20Water%20and%20Power/LADWP%20UWMP_2010_LowRes.pdf).



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- Water imported from northern California, via the State Water Project, and from the Colorado River, by the Metropolitan Water District of Southern California (MWD)
- Local groundwater from the San Fernando, Sylmar, and Eagle Rock groundwater basins, and the Central, and West Coast subbasins of the Coastal Plain of Los Angeles groundwater basin.
- Recycled water; uses include irrigation, industrial uses, and groundwater recharge.<sup>22</sup>

### *Forecast Water Supplies and Demands*

Forecast Los Angeles Department of Water and Power water supplies and demands from 2015 through 2035 are shown below in Table 5.18-2.

**Table 5.18-2 Forecast Water Supplies and Demands, Los Angeles Department of Water and Power**

Source	2015	2020	2025	2030	2035
<b>Water Supplies</b>					
<i>Imported Water</i>					
Los Angeles Aqueduct	252,000	250,000	248,000	246,000	244,000
MWD Water Purchases	248,120	218,040	193,760	198,781	193,027
Water Transfers	40,000	40,000	40,000	40,000	40,000
<i>Subtotal</i>	<i>540,120</i>	<i>508,040</i>	<i>481,760</i>	<i>484,781</i>	<i>477,027</i>
<i>Local Water Sources</i>					
Groundwater	40,500	96,300	111,500	111,500	110,405
Recycled Water	20,000	20,400	42,000	51,500	59,000
Conservation	14,180	27,260	40,340	53,419	64,368
<i>Subtotal</i>	<i>74,680</i>	<i>143,960</i>	<i>193,840</i>	<i>216,419</i>	<i>233,773</i>
<b>Total</b>	<b>614,800</b>	<b>652,000</b>	<b>675,600</b>	<b>701,200</b>	<b>710,800</b>
<b>Water Demands</b>	<b>614,800</b>	<b>652,000</b>	<b>675,600</b>	<b>701,200</b>	<b>710,800</b>

Source: City of Los Angeles Department of Water and Power (LADWP). Adopted May 3, 2011. Urban Water Management Plan. [http://www.water.ca.gov/urbanwatermanagement/2010uwmps/Los%20Angeles%20Department%20of%20Water%20and%20Power/LADWP%20UWMP\\_2010\\_LowRes.pdf](http://www.water.ca.gov/urbanwatermanagement/2010uwmps/Los%20Angeles%20Department%20of%20Water%20and%20Power/LADWP%20UWMP_2010_LowRes.pdf).

Note: numbers shown in acre-feet.

Most of the portions of the District outside the City of Los Angeles—in the South and West Educational Service Center areas—are in the service areas of two water wholesalers that purchase MWD imported water and resell it to local water purveyors: the Central Basin Municipal Water District (CBMWD) and West Basin Municipal Water District (WBMWD). The CBMWD, WBMWD, and LADWP are all member agencies of the MWD.

### *Central Basin Municipal Water District*

Cities and communities within the District and CBMWD's service area include the cities of Vernon, Maywood, Huntington Park, Bell, Cudahy, South Gate, part of the City of Carson; the communities of East

<sup>22</sup> Ibid. LADWP 2011.

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Los Angeles, Florence-Graham, and Walnut Park in unincorporated Los Angeles County, and part of the Community of Willowbrook in Los Angeles County.

CBMWD's water supplies include water imported from northern California and the Colorado River by MWD; local groundwater from the Central subbasin of the Coastal Plain of Los Angeles Groundwater Basin; and recycled water.<sup>23</sup>

Water supplies and demands in CBMWD's service area are summarized in Table 5.18-3.

**Table 5.18-3 Forecast Water Supplies and Demands, Central Basin Municipal Water District**

Source		2015	2020	2025	2030	2035
Water Supplies	Groundwater	194,400	194,400	194,400	194,400	194,400
	Imported Water	72,360	72,360	72,360	72,360	72,360
	Recycled Water	12,900	17,900	17,900	17,900	17,900
	<b>Total</b>	<b>279,660</b>	<b>284,660</b>	<b>284,660</b>	<b>284,660</b>	<b>284,660</b>
Water Demands		245,825	253,285	260,470	262,355	264,040
Surplus		33,835	31,375	24,190	22,305	20,620

Source: Central Basin Municipal Water District (CBMWD). 2012, April 9. 2010 Urban Water Management Plan. <http://www.centralbasin.org/en/wp-content/uploads/sites/2/2013/11/UWMP-2010-web.pdf>.

### *West Basin Municipal Water District*

Cities and communities within the District and WBMWD's service area include the cities of Carson, Gardena, and Lomita; parts of the cities of Rancho Palos Verdes, Hawthorne, and Inglewood; and communities of West Carson, West Rancho Dominguez, West Athens, and Westmont in unincorporated Los Angeles County.<sup>24</sup> WBMWD's water sources are generally similar to those of CBMWD, except that WBMWD also obtains water from desalination. A 2,400-afy capacity desalination facility in the City of Torrance removes chloride from groundwater impacted by seawater. An ocean desalination facility with 20,000 afy capacity is proposed and, if built, completion is anticipated in 2017.<sup>25</sup>

WBMWD water supplies and demands are summarized in Table 5.18-4.

<sup>23</sup> Central Basin Municipal Water District (CBMWD). 2012, April 9. 2010 Urban Water Management Plan. <http://www.centralbasin.org/en/wp-content/uploads/sites/2/2013/11/UWMP-2010-web.pdf>.

<sup>24</sup> West Basin Municipal Water District (WBMWD). 2013, February 12. West Basin Municipal Water District Service Area. <http://www.westbasin.org/files/maps/wbmwd-service-area-02-17-2009.pdf>.

<sup>25</sup> RMC. 2011, June. West Basin Municipal Water District 2010 Urban Water Management Plan. <http://www.westbasin.org/water-reliability-2020/planning/water-resources-planning>.

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**Table 5.18-4 Forecast Water Supplies and Demands, West Basin Municipal Water District**

Source		2015	2020	2025	2030	2035
Water Supplies	Groundwater	45,000	45,000	45,000	45,000	45,000
	Imported Water	114,647	76,797	75,386	70,598	69,761
	Recycled Water	16,368	33,882	33,882	37,382	37,382
	Desalination	1,000	21,500	21,500	21,500	21,500
	<b>Total</b>	<b>177,015</b>	<b>177,179</b>	<b>175,768</b>	<b>174,480</b>	<b>173,643</b>
<b>Water Demands</b>		<b>177,015</b>	<b>177,179</b>	<b>175,768</b>	<b>174,480</b>	<b>173,643</b>
Surplus		0	0	0	0	0

Source: RMC. 2011, June. West Basin Municipal Water District 2010 Urban Water Management Plan. <http://www.westbasin.org/water-reliability-2020/planning/water-resources-planning>.

*Water Supply Reliability*

The Southern California region faces a challenge satisfying its water requirements and securing firm water supplies. Increased environmental regulations and competition for water from outside the region have resulted in reduced supplies of imported water. Continued population and economic growth correspond to increase water demands in the region, putting an even larger burden on local supplies. A number of important factors affecting delivery reliability are discussed below. Major sources of uncertainty include Sacramento Delta pumping restrictions, organism decline, climate change and sea level rise, and levee vulnerability to floods and earthquakes.

**MWD’s 2010 Regional Urban Water Management Plan.** MWD’s 2010 Regional Urban Water Management Plan (UWMP) reports on its water reliability and identifies projected supplies to meet the long-term demand within its service area. It presents MWD’s supply capacities from 2015 through 2035: single dry year, multiple dry years, and average year.

**Colorado River Supplies.** The Colorado River Aqueduct (CRA) supplies include water from existing and committed programs and from implementation of agreements to transfer water from agricultural agencies to urban uses. The Colorado River has the potential to supply additional water up to the CRA capacity of 1.25 million af on an as-needed basis.

**State Water Project Supplies.** MWD’s State Water Project supplies have been impacted in recent years by restrictions on SWP operations in accordance with the biological opinions of the U.S. Fish and Wildlife Service and National Marine Fishery Service, issued on December 15, 2008, and June 4, 2009, respectively. In dry, below-normal conditions, MWD has increased the supplies received from the California Aqueduct by developing flexible Central Valley/SWP storage and transfer programs. The goal of the storage/transfer programs is to develop additional dry-year supplies that can be conveyed through the available pumping capacity to maximize deliveries through the California Aqueduct during dry hydrologic conditions and regulatory restrictions.

In June 2007, MWD’s Board approved a Delta Action Plan that provides a framework for staff to pursue actions with other agencies and stakeholders to build a sustainable Delta and reduce conflicts between water supply conveyance and the environment. The Delta action plan aims to prioritize immediate short-term

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actions to stabilize the Sacramento River Delta while an ultimate solution is selected, and midterm steps to maintain the Bay-Delta while the long-term solution is implemented.

State and federal resource agencies and various environmental and water user entities are currently engaged in the development of the Bay Delta Conservation Plan, which is aimed at addressing Delta ecosystem restoration, water supply conveyance, flood control protection, and storage development. In evaluating the supply capabilities for the 2010 Regional UWMP, MWD assumed a new Delta conveyance is fully operational by 2022 that would return supply reliability similar to 2005 conditions, prior to supply restrictions.

**Storage.** Storage is a major component of MWD’s dry year resource management strategy. The likelihood of MWD having adequate supply capability to meet projected demands without implementing its water supply allocation plan (WSAP) is dependent on its storage resources. In developing the supply capabilities for the 2010 Regional UWMP, MWD assumed a simulated median storage level going into each of five-year increments based on the balances of supplies and demands.

**Supply Reliability.** MWD evaluated supply reliability by projecting supply and demand conditions for the single- and multiyear drought cases based on conditions affecting the SWP (MWD’s largest and most variable supply). For this supply source, the single driest year was 1977, and the driest three-year period was 1990 to 1992. The region can provide reliable water supplies not only under normal conditions but also under the single driest year and the multiple dry year conditions.

**Water Supply Allocation Plan.** Due to drought conditions and the uncertainty regarding future pumping operations from the SWP, MWD adopted a WSAP in 2008 that allocates water to members based on the regional shortage level in MWD’s service area. For future years in which MWD’s supplies are insufficient to meet firm demands, imported supplies to member agencies will be managed in accordance with the WSAP.

### *Groundwater Reliability*

Groundwater basins are managed so that groundwater pumping does not exceed the total of natural and intentional recharge into a basin; such sustainable rate of groundwater pumping is the *safe operating yield*.

Agencies managing groundwater pumping and intentional groundwater recharge for three of the major groundwater basins underlying the District are listed below in Table 5.18-5. All three basins are managed pursuant to court judgments; for each basin, the judgment specifies an agency (Watermaster) responsible for implementing the judgment.

**Table 5.18-5 Groundwater Basins Management and Safe Yields**

Groundwater Basin	Watermaster	Safe Operating Yield, afy
Coastal Plain of Los Angeles Basin, West Coast Subbasin	Department of Water Resources (DWR)	64,468 pumping rights <sup>1</sup>
Coastal Plain of Los Angeles Basin, Central Subbasin	DWR	217,367 adjudicated water rights <sup>2</sup>
San Fernando Valley Basin	Upper Los Angeles River Area Watermaster	87,000 consisting of 43,660 natural recharge plus 43,000 intentional recharge with imported water <sup>3</sup>

Sources: DWR 2004; <sup>1</sup> RMC 2011; <sup>2</sup> CBMWD 2012; <sup>3</sup> LADWP 2011.

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### *2013–2014 Drought*

The recent severe drought in California is discussed under *Governor’s Drought Declaration* in Section 5.18.1.1, *Regulatory Framework*, above.

### Water Treatment Facilities

Water treatment facilities filter and/or disinfect water before it is delivered to customers.

#### *Metropolitan Water District of Southern California*

MWD owns and operates five water treatment facilities. Only one of the five facilities, the Joseph Jensen Treatment Plant in the Community of Granada Hills in the City of Los Angeles, is in or near the District. The Joseph Jensen Treatment Plant has capacity of 750 million gallons per day.<sup>26</sup> The remaining four treatment plants have total capacity of about 1.9 billion gallons per day. Two of the four remaining plants are in western Riverside County, one is in eastern Los Angeles County, and one in Orange County. MWD’s distribution system links all five treatment plants, and in the event of a shortage of potable water in the District, could convey treated water to the District from the other four treatment plants.<sup>27,28</sup>

#### *City of Los Angeles Department of Water and Power*

LADWP groundwater treatment systems in the San Fernando Valley include those listed in Table 5.18-6.

**Table 5.18-6 Water Treatment Facilities, Los Angeles Department of Water and Power**

Facility	Contaminants Treated	Technology	Capacity
<b>San Fernando Valley Groundwater Basin</b>			
Tujunga Wellfield Joint Project	Volatile organic compounds (VOCs)	liquid-phase granular activated carbon	4,680 af treated in 2011–2012 water year; restored 12,000 afy pumping capacity that had become inoperable due to water quality constraints.
North Hollywood Operable Unit	VOCs	Air stripping	1,248 af treated in 2011–2012 water year
Pollock Wells Treatment Plant	VOCs	four liquid-phase granular activated carbon units	2,957 af treated in 2011–2012 water year
<b>Sylmar Groundwater Basin</b>			
Mission Wells Improvement Project (expected completion August 2014)	Trichloroethylene (a VOC)	Not available	3,405 afy

<sup>26</sup> Metropolitan Water District of Southern California (MWDSC). 2011, August 3. Joseph Jensen Treatment Plant. <http://www.mwdh2o.com/mwdh2o/pages/yourwater/plants/jensen01.html>.

<sup>27</sup> Metropolitan Water District of Southern California (MWDSC). 2011, March 9. Service Area Map. <http://www.mwdh2o.com/mwdh2o/pages/about/AR/AR09/MWD-Service-Area-Map.pdf>.

<sup>28</sup> Metropolitan Water District of Southern California (MWDSC). 2013, January. At a Glance. [http://www.mwdh2o.com/mwdh2o/pages/news/at\\_a\\_glance/mwd.pdf](http://www.mwdh2o.com/mwdh2o/pages/news/at_a_glance/mwd.pdf).

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#### *Central Basin Municipal Water District*

A groundwater treatment facility, the Water Quality Protection Project, treats groundwater for VOC contamination in the City of Pico Rivera in the Central subbasin; the contamination is a plume originating from the San Gabriel Valley to the north. The facility uses granular-activated carbon and has a capacity of 2,000 gallons per minute.<sup>29</sup>

Wellhead treatment is used in certain places in the Central subbasin to remove TCE, PCE, iron, manganese, arsenic, and carbon tetrachloride from groundwater.<sup>30</sup>

#### *West Basin Municipal Water District*

A 2,400-afy capacity desalination facility in the City of Torrance removes chloride from groundwater impacted by seawater.

### 5.18.1.4 WASTEWATER SERVICES

#### Wastewater Collection

Sewer service providers by jurisdiction are listed in Table 5.18-7.

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<sup>29</sup> Central Basin Municipal Water District (CBMWD). 2011, March. Draft 2010 Urban Water Management Plan. [http://www.centralbasin.org/press\\_releases/Draft-2010-Urban-Water-Management-Plan.pdf](http://www.centralbasin.org/press_releases/Draft-2010-Urban-Water-Management-Plan.pdf).

<sup>30</sup> Water Replenishment District of Southern California (WRD). 2013, October 15. Safe Drinking Water Program. [http://www.wrd.org/safe\\_drinking\\_water\\_2013\\_10\\_15.pdf](http://www.wrd.org/safe_drinking_water_2013_10_15.pdf).

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**Table 5.18-7 Sewer Service Providers**

Educational Service Center Area	City	Sewer
All	Los Angeles <sup>31</sup>	City of Los Angeles Bureau of Sanitation
North	San Fernando <sup>32</sup>	City of San Fernando Sewer Maintenance Division
West	West Hollywood <sup>33</sup>	City of West Hollywood Engineering Division
	Los Angeles County (Unincorporated) <sup>34</sup> Marina Del Rey	Marina Del Rey Sewer Maintenance District
East	Los Angeles County (Unincorporated) East Los Angeles	Los Angeles County Consolidated Sewer Maintenance District
South	Bell <sup>35</sup>	City of Bell Engineering Division
	Carson <sup>36</sup>	Los Angeles County Consolidated Sewer Maintenance District
	Cudahy <sup>37</sup>	Cudahy Public Works Department
	Gardena <sup>38</sup>	City of Gardena Sanitation Services Division
	Huntington Park <sup>39</sup>	Water and Sewer Division
	Lomita	Los Angeles County Consolidated Sewer Maintenance District
	South Gate <sup>40</sup>	City of South Gate Water Division
	Los Angeles County (Unincorporated) <sup>41</sup>	West Carson
	Los Angeles County (Unincorporated) <sup>42</sup>	Willowbrook
Florence-Graham		Los Angeles County Consolidated Sewer Maintenance District
West Rancho Dominguez		Los Angeles County Consolidated Sewer Maintenance District

### Wastewater Treatment

#### Wastewater Treatment Process

Sanitary wastewater is treated in the following three phases:

<sup>31</sup> City of Los Angeles Bureau of Sanitation (LABOS). 2014, February 4. Wastewater: About Wastewater. <http://www.lacitysan.org/wastewater/index.htm>.

<sup>32</sup> City of San Fernando. 2014, February 4. Public Works: Sewer Maintenance. [http://www.ci.san-fernando.ca.us/city\\_government/departments/pubworks/divisions/sewer\\_maint.shtml](http://www.ci.san-fernando.ca.us/city_government/departments/pubworks/divisions/sewer_maint.shtml).

<sup>33</sup> City of West Hollywood. 2014, February 4. Sewers. <http://www.weho.org/city-hall/city-departments/public-works/engineering/sewers>.

<sup>34</sup> Los Angeles County Department of Public Works. 2014, February 4. Sewer Maintenance. <http://dpw.lacounty.gov/smd/smd/>.

<sup>35</sup> City of Bell. 2014, February 3. Utility Providers. <http://www.cityofbell.org/?navid=271>.

<sup>36</sup> City of Carson. 2014, February 4. Street Maintenance. [http://ci.carson.ca.us/content/department/dev\\_service/streetmaint.asp](http://ci.carson.ca.us/content/department/dev_service/streetmaint.asp).

<sup>37</sup> City of Cudahy. 2014, February 4. Water and Sewer. <http://www.cudahy-wi.gov/cudahy/residents/water+and+sewer/default.asp>.

<sup>38</sup> City of Gardena. 2014, February 4. Sanitation – Sewer System. <http://www.ci.gardena.ca.us/departments/PublicWorks/sanitation.html>.

<sup>39</sup> City of Huntington Park. 2014, February 4. Water & Sewer Division. <http://www.huntingtonpark.org/index.aspx?nid=76>.

<sup>40</sup> City of South Gate. 2014, February 4. Water/Sewer Service. <http://www.sogate.org/index.cfm/fuseaction/nav/navid/71/>.

<sup>41</sup> Los Angeles County Department of Public Works. 2014, February 4. Sewer Maintenance. <http://dpw.lacounty.gov/smd/smd/>.

<sup>42</sup> Los Angeles County Department of Public Works. 2014, February 4. Sewer Maintenance. <http://dpw.lacounty.gov/smd/smd/>.

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- **Primary Treatment:** removal of solids using settling tanks;
- **Secondary Treatment:** reduction of organic matter using bacteria and oxygen; followed by further removal of solids; and
- **Tertiary Treatment:** filtration of wastewater to remove any solids remaining after the first two phases of treatment.

Most wastewater that undergoes tertiary treatment is disinfected after tertiary treatment. Disinfection methods include chlorine bleach and ultraviolet light. Tertiary-treated wastewater is often reused (i.e. recycled) for landscape and agricultural irrigation, groundwater recharge, and industrial uses.

#### *City of Los Angeles*

The City of Los Angeles Bureau of Sanitation provides wastewater treatment to the City. The Bureau of Sanitation operates four wastewater treatment plants:

- Hyperion Treatment Plant in the City of El Segundo provides primary and secondary treatment; capacity 450 million gallons per day (mgd); average daily flows 362 mgd.<sup>43, 44</sup>
- Donald Tillman Water Reclamation Plant in the Community of Van Nuys (City of Los Angeles) in the San Fernando Valley provides primary, secondary, and tertiary treatment; capacity 80 mgd; average daily flows 67 mgd.<sup>45, 46</sup>
- Los Angeles-Glendale Water Reclamation Plant in the Community of Atwater Village (City of Los Angeles) in the San Fernando Valley provides primary, secondary, and tertiary treatment; capacity 20 mgd; average daily flows 20 mgd.<sup>47, 48</sup>
- Terminal Island Water Reclamation Plant on Terminal Island in Los Angeles Harbor in the City of Los Angeles provides primary, secondary, and tertiary treatment; capacity 30 mgd; average daily flows 17.5 mgd.<sup>49, 50</sup>

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<sup>43</sup> Los Angeles Bureau of Sanitation (LABOS). 2014, February 4. Hyperion Treatment Plant: About our plant. [http://www.lacitysan.org/lasewers/treatment\\_plants/hyperion/index.htm](http://www.lacitysan.org/lasewers/treatment_plants/hyperion/index.htm).

<sup>44</sup> Los Angeles Bureau of Sanitation (LABOS). 2014, February 4. About Wastewater: Facts and Figures. <http://www.lacitysan.org/wastewater/factsfigures.htm>.

<sup>45</sup> Los Angeles Bureau of Sanitation (LABOS). 2014, February 4. Donald C. Tillman Water Reclamation Plant: About our plant. [http://www.lacitysan.org/lasewers/treatment\\_plants/tillman/index.htm](http://www.lacitysan.org/lasewers/treatment_plants/tillman/index.htm).

<sup>46</sup> Los Angeles Bureau of Sanitation (LABOS). 2014, February 4. About Wastewater: Facts and Figures. <http://www.lacitysan.org/wastewater/factsfigures.htm>.

<sup>47</sup> Los Angeles Bureau of Sanitation (LABOS). 2014, February 4. Los Angeles-Glendale Water Reclamation Plant: About our plant. [http://www.lacitysan.org/lasewers/treatment\\_plants/la\\_glendale/index.htm](http://www.lacitysan.org/lasewers/treatment_plants/la_glendale/index.htm).

<sup>48</sup> Los Angeles Bureau of Sanitation (LABOS). 2014, February 4. About Wastewater: Facts and Figures. <http://www.lacitysan.org/wastewater/factsfigures.htm>.

<sup>49</sup> Los Angeles Bureau of Sanitation (LABOS). 2014, February 4. Terminal Island Water Reclamation Plant: About our plant. [http://www.lacitysan.org/lasewers/treatment\\_plants/terminal\\_island/index.htm](http://www.lacitysan.org/lasewers/treatment_plants/terminal_island/index.htm).



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### *Sanitation Districts of Los Angeles County*

Most of the District outside of the City of Los Angeles is in the service area of the LACSD. Parts of the District are in the service area of the Joint Water Pollution Control Plant in the City of Carson. This facility provides primary and secondary treatment with capacity of 400 mgd and average daily flows of 280 mgd.<sup>51</sup>

#### 5.18.1.5 STORM DRAINAGE SYSTEMS

The Los Angeles County storm drain system consists of channels, drains, debris basins, and catch basins owned and maintained by the Los Angeles County Flood Control District (LACFCD), the City of Los Angeles, and US Army Corps of Engineers (Corps).<sup>52</sup>

#### Flood Control Facilities

Major regional flood control facilities in the District and upstream near the District are discussed below.

##### *North ESC: Los Angeles River Watershed*

The primary drainage channel is the Los Angeles River. Major tributaries of the Los Angeles River include Tujunga Wash, Pacoima Wash, Bull Creek, Aliso Canyon Wash, Browns Canyon Wash, Bell Creek, and Arroyo Calabasas. Major flood control dams and basins include Sepulveda Dam on the Los Angeles River, Hansen Dam on Tujunga Wash, and Pacoima Dam on Pacoima Wash.

##### *East ESC: Los Angeles River Watershed.*

The primary drainage channel is the Los Angeles River, and the major tributary of the Los Angeles River in this area is the Arroyo Seco. The major flood control dam upstream from this area is Devil's Gate Dam and Reservoir in the City of Pasadena.

##### *West ESC: Santa Monica Bay Watershed*

The primary drainage channel in the west Los Angeles Basin within the Santa Monica Bay Watershed is Ballona Creek.

##### *South ESC*

##### *Los Angeles River Watershed*

The Los Angeles River and the Rio Hondo are the primary drainage channels in this area. Major flood control dams and basins include Whittier Narrows Dam on the Rio Hondo and San Gabriel River.<sup>53</sup>

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<sup>50</sup> Los Angeles Bureau of Sanitation (LABOS). 2014, February 4. About Wastewater: Facts and Figures. <http://www.lacitysan.org/wastewater/factsfigures.htm>.

<sup>51</sup> Los Angeles County Sanitation Districts. 2014, February 4. Joint Water Pollution Control Plant (JWPCP). <http://www.lacsd.org/wastewater/wwfacilities/jwpcp/default.asp>.

<sup>52</sup> Los Angeles County Department of Public Works (LADPW). 2014, February 6. Los Angeles County Flood Control District (LACFCD). <http://dpw.lacounty.gov/lacfed/>.

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#### *Dominguez Watershed*

The Dominguez Channel is the major drainage channel in this area.

#### 5.18.1.6 SOLID WASTE

##### **Solid Waste Collection**

Agencies and companies collecting solid waste in the District are listed by jurisdiction below in Table 5.18-8.

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<sup>53</sup> The Rio Hondo is tributary to the Los Angeles River, and connects the San Gabriel River at Santa Fe Dam in the San Gabriel Valley to the Los Angeles River in the City of South Gate.

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UTILITIES AND SERVICE SYSTEM

**Table 5.18-8 Solid Waste Collection by Jurisdiction**

Educational Service Center Area	City	Solid Waste Collector(s)	
All	Los Angeles <sup>54</sup>	City of Los Angeles Bureau of Sanitation	
North	San Fernando <sup>55</sup>	Crown Disposal	
West	West Hollywood <sup>56</sup>	Athens Services	
	Los Angeles County (Unincorporated) Marina Del Rey		
East	Los Angeles County (Unincorporated) East Los Angeles	Republic Services	
South	Bell <sup>57</sup>	Republic Services	
	Carson <sup>58</sup>	Waste Management, Inc.	
	Cudahy <sup>59</sup>	City of Cudahy Public Works Department	
	Gardena <sup>60</sup>	Waste Resources	
	Huntington Park <sup>61</sup>	Waste Management, Inc. Republic Services	
	Lomita <sup>62</sup>	Calmet Services	
	Maywood <sup>63</sup>	Republic Services	
	South Gate <sup>64</sup>	Waste Management, Inc.	
	Los Angeles County (Unincorporated)	West Carson	
		Willowbrook	
Florence-Graham			
West Rancho Dominguez			

**Solid Waste Disposal**

*Landfills*

***City of Los Angeles***

The City of Los Angeles is one of 17 member cities of the Los Angeles Regional Agency (LARA), a joint powers authority promoting recycling and solid waste diversion. Data on disposal by landfill is available for

<sup>54</sup> City of Los Angeles Bureau of Sanitation (BOS). 2014, February 4. Refuse Services. [http://san.lacity.org/services/services\\_refuse.htm](http://san.lacity.org/services/services_refuse.htm).

<sup>55</sup> City of San Fernando. 2014, February 3. Water Department. [http://www.ci.sanfernando.ca.us/city\\_government/departments/pubworks/divisions/water.shtml](http://www.ci.sanfernando.ca.us/city_government/departments/pubworks/divisions/water.shtml).

<sup>56</sup> City of West Hollywood. 2014, February 4. Trash and Recycling: Frequently Asked Questions. <http://www.weho.org/city-hall/city-departments/public-works/environmental-services/trash-and-recycling/frequently-asked-questions>.

<sup>57</sup> City of Bell. 2014, February 4. Residential Trash and Recycling. <http://www.cityofbell.org/?navid=74>.

<sup>58</sup> City of Carson. 2014, February 3. Solid Waste. [http://ci.carson.ca.us/content/departments/dev\\_service/solidwaste.asp](http://ci.carson.ca.us/content/departments/dev_service/solidwaste.asp).

<sup>59</sup> City of Cudahy. 2014, February 3. Garbage and Recycling. <http://www.cudahy-wi.gov/cudahy/residents/garbage+and+recycling/default.asp>.

<sup>60</sup> City of Gardena. 2014, February 4. Residential Trash Collection FAQ's. <http://www.ci.gardena.ca.us/stories/trashcollection.html>.

<sup>61</sup> City of Huntington Park. 2014, February 4. Trash Collection. <http://www.huntingtonpark.org/index.aspx?NID=145>.

<sup>62</sup> City of Lomita. 2014, February 4. Services. <http://lomita.com/CITYHALL/services/index.html>.

<sup>63</sup> City of Maywood. 2014, February 4. Solid Waste & Recycling. [http://www.cityofmaywood.com/index.php?option=com\\_content&view=article&id=61&Itemid=89](http://www.cityofmaywood.com/index.php?option=com_content&view=article&id=61&Itemid=89).

<sup>64</sup> City of South Gate. 2014, February 4. Refuse & Recycling Services. <http://www.sogate.org/index.cfm/fuseaction/DetailGroup/CID/115/NavID/72/>.

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LARA but not for the City of Los Angeles. In 2012, 98 percent of the solid waste landfilled from LARA member cities was disposed at nine landfills. One of those landfills, the Puente Hills Landfill in the City of Industry, closed in October 2013. The remaining eight landfills are described in Table 5.18-9.

**Table 5.18-9 Landfills Used by Los Angeles Regional Authority**

Landfill and Location	Current Remaining Capacity, Cubic Yards	Estimated Close Date	Maximum Daily Load (tons)	Average Daily Disposal, 2012 (tons)
Antelope Valley Public Landfill <sup>65</sup> City of Palmdale	20,400,000	2042	3,564	855
Calabasas Sanitary Landfill <sup>66</sup> Community of Agoura, unincorporated Los Angeles County	18,100,000	2025	3,500	658
Chiquita Canyon Sanitary Landfill <sup>67</sup> Community of Castaic, unincorporated Los Angeles County	29,300,000	2019	6,000	3,090
El Sobrante Landfill <sup>68</sup> City of Corona, Riverside County	145,530,000	2045	16,054	6,426
Lancaster Landfill and Recycling Center <sup>69</sup> , City of Lancaster	27,700,000	2044	5,100	709
Olinda Alpha Sanitary Landfill <sup>70</sup>	38,578,383	2021	8,000	5,210
Simi Valley Landfill & Recycling Center <sup>71</sup> City of Simi Valley, Ventura County	119,600,000	2052	9,250	2,209
Sunshine Canyon City/County Landfill <sup>72</sup> Community of Sylmar, City of Los Angeles	140,900,000	2037	12,100	5,174

Each of the eight landfills is open six days per week, Monday through Saturday, except for certain holidays.

Sources: California Department of Resources Recovery and Recycling (CalRecycle). 2014, February 4. Jurisdiction Disposal by Facility. <http://www.calrecycle.ca.gov/lqcentral/Reports/DRS/Destination/JurDspFa.aspx>

### *Other Jurisdictions:*

Most of the District outside of the City of Los Angeles is in the service area of the Los Angeles County Sanitation Districts. LACSD landfills, material recovery facilities, transfer stations, and refuse to energy facilities serving the District include: Calabasas Sanitary Landfill, Puente Hills Materials Recovery Facility,

<sup>65</sup> California Department of Resources Recovery and Recycling (CalRecycle). 2014, February 4. Antelope Valley Public Landfill (19-AA-5624). <http://www.calrecycle.ca.gov/SWFacilities/Directory/19-AA-5624/Detail/>.

<sup>66</sup> California Department of Resources Recovery and Recycling (CalRecycle). 2014, February 4. Calabasas Sanitary Landfill (19-AA-0056). <http://www.calrecycle.ca.gov/SWFacilities/Directory/19-AA-0056/Detail/>.

<sup>67</sup> California Department of Resources Recovery and Recycling (CalRecycle). 2014, February 4. Chiquita Canyon Sanitary Landfill (19-AA-0052). <http://www.calrecycle.ca.gov/SWFacilities/Directory/19-AA-0052/Detail/>.

<sup>68</sup> California Department of Resources Recovery and Recycling (CalRecycle). 2014, February 4. El Sobrante Landfill (33-AA-0217). <http://www.calrecycle.ca.gov/SWFacilities/Directory/33-AA-0217/Detail/>.

<sup>69</sup> California Department of Resources Recovery and Recycling (CalRecycle). 2014, February 4. Lancaster Landfill and Recycling Center (19-AA-0050). <http://www.calrecycle.ca.gov/SWFacilities/Directory/19-AA-0050/Detail/>.

<sup>70</sup> California Department of Resources Recovery and Recycling (CalRecycle). 2014, February 4. Olinda Alpha Sanitary Landfill (30-AB-0035). <http://www.calrecycle.ca.gov/SWFacilities/Directory/30-AB-0035/Detail/>.

<sup>71</sup> California Department of Resources Recovery and Recycling (CalRecycle). 2014, February 4. Simi Valley Landfill & Recycling Center (56-AA-0007). <http://www.calrecycle.ca.gov/SWFacilities/Directory/56-AA-0007/Detail/>.

<sup>72</sup> California Department of Resources Recovery and Recycling (CalRecycle). 2014, February 4. Sunshine Canyon City/County Landfill (19-AA-2000). <http://www.calrecycle.ca.gov/SWFacilities/Directory/19-AA-2000/Detail/>.

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Downey Area Recycling and Transfer Facility, South Gate Transfer Station, Southeast Resource Recovery Facility, and Commerce Refuse-to-Energy Facility.<sup>73</sup> The Calabasas Sanitary Landfill is described above in Table 5.18-7.

Maximum daily capacities of LACSD material recovery facilities, transfer stations, and refuse to energy facilities serving the District are, in tons per day:

- Materials Recovery Facilities and Transfer Stations
  - Puente Hills Materials Recovery Facility, City of Industry: 4,400<sup>74</sup>
  - Downey Area Recycling and Transfer Facility, City of Downey: 5,000<sup>75</sup>
  - South Gate Transfer Station, City of South Gate: 1,000<sup>76</sup>
- Refuse to Energy Facilities
  - Southeast Resource Recovery Facility, City of Long Beach: 2,240<sup>77</sup>
  - Commerce Refuse-to-Energy Facility, City of Commerce: 1,000<sup>78</sup>

### Solid Waste Diversion

Fifty-five solid waste diversion programs are provided within the 17-member jurisdictions of the LARA, including composting, material recovery facilities, household hazardous waste collection, public education, recycling, source reduction,<sup>79</sup> special waste materials (such as tires and concrete/asphalt/rubble), and waste-to-energy programs.<sup>80</sup>

#### 5.18.1.7 ELECTRICITY

The LADWP provides electricity to the City of Los Angeles. Southern California Edison provides electricity to nearly all of the balance of the District. The City of Vernon Light and Power Department provides electricity to the City of Vernon.

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<sup>73</sup> LACSD operates a second landfill, the Scholl Canyon Landfill in the City of Glendale. However, that landfill is limited by Glendale City Ordinance to accepting waste from certain parts of the San Gabriel and San Fernando Valleys, and does not serve the District. Los Angeles County Sanitation Districts (LACSD). 2014, February 5. Scholl Canyon Landfill. <http://www.lacsd.org/solidwaste/swfacilities/landfills/scholl/default.asp>.

<sup>74</sup> California Department of Resources Recovery and Recycling (CalRecycle). 2014, February 5. Puente Hills Materials Recovery Facility (19-AA-1043). <http://www.calrecycle.ca.gov/SWFacilities/Directory/19-AA-1043/Detail/>.

<sup>75</sup> California Department of Resources Recovery and Recycling (CalRecycle). 2014, February 5. Downey Area Recycling & Transfer (19-AA-0801). <http://www.calrecycle.ca.gov/SWFacilities/Directory/19-AA-0801/Detail/>.

<sup>76</sup> California Department of Resources Recovery and Recycling (CalRecycle). 2014, February 5. South Gate Transfer Station (19-AA-0005). <http://www.calrecycle.ca.gov/SWFacilities/Directory/19-AA-0005/Detail/>.

<sup>77</sup> California Department of Resources Recovery and Recycling (CalRecycle). 2014, February 5. Southeast Resource Recovery Facility (19-AK-0083). <http://www.calrecycle.ca.gov/SWFacilities/Directory/19-AK-0083/Detail/>.

<sup>78</sup> California Department of Resources Recovery and Recycling (CalRecycle). 2014, February 5. Commerce Refuse-To-Energy Facility (19-AA-0506). <http://www.calrecycle.ca.gov/SWFacilities/Directory/19-AA-0506/Detail/>.

<sup>79</sup> Source reduction is reducing the amount of waste disposed of through changes in the design, manufacture, packaging or use of a product -- and using fewer toxics. Source reduction also includes reusing or extending the life of products and packaging.

<sup>80</sup> California Department of Resources Recovery and Recycling (CalRecycle). 2014, March 18. Jurisdiction Waste Diversion Program Summary. <http://www.calrecycle.ca.gov/LGCentral/reports/diversionprogram/JurisdictionDiversionPrograms.aspx?JurisdictionID=621&Year=2012>.

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### City of Los Angeles

LADWP's net maximum generating plant capacity is 7,197 megawatts. LADWP supplied about 25.2 million megawatt-hours of electricity during fiscal year 2010–2011.<sup>81</sup> LADWP's sources of electricity generation during 2012 were: 33 percent coal, 21 percent natural gas, 20 percent renewables (including 13 percent wind), 12 percent unspecified, 10 percent nuclear, and 4 percent large hydroelectric.<sup>82</sup>

### Southern California Edison

Total electricity demands in SCE's service area are forecast to increase from 99,224 gigawatt-hours per year (GWH) in 2011 to 109,888 GWH in 2020; one GWH is equivalent to one million kilowatt-hours.<sup>83</sup> SCE's sources of electricity generation in 2012 were 20 percent renewable, including 9 percent geothermal and 8 percent wind; 21 percent natural gas; 7 percent coal; 7 percent nuclear; 4 percent large hydroelectric; and 41 percent unspecified.<sup>84</sup>

#### 5.18.1.8 NATURAL GAS

The Southern California Gas Company (SCGC) provides natural gas to nearly the entire District. The Vernon Light and Power Department provides natural gas to the City of Vernon. Total natural gas supplies available to SCGC are forecast to remain constant at 3,875 million cubic feet per day from 2015 through 2030.<sup>85</sup>

### 5.18.2 Thresholds of Significance

According to CEQA Guidelines Appendix G a project would normally have a significant effect on the environment if the project:

- USS-1        Would exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
- USS-2        Would require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- USS-3        Would require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

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<sup>81</sup> Los Angeles Department of Water & Power (LADWP). 2014, March 18. Facts & Figures. [https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-factandfigures?\\_adf.ctrl-state=q4accti9m\\_4&\\_afLoop=323811493202942](https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-factandfigures?_adf.ctrl-state=q4accti9m_4&_afLoop=323811493202942).

<sup>82</sup> Los Angeles Department of Water & Power (LADWP). 2014, March 18. Power Content Label. [https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-powercontentlabel?\\_adf.ctrl-state=q4accti9m\\_4&\\_afLoop=323909368047003](https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-powercontentlabel?_adf.ctrl-state=q4accti9m_4&_afLoop=323909368047003).

<sup>83</sup> California Energy Commission (CEC). 2012a, June. California Energy Demand 2012 Final Forecast. <http://www.energy.ca.gov/2012publications/CEC-200-2012-001/CEC-200-2012-001-CMF-V2.pdf>.

<sup>84</sup> Southern California Edison (SCE). 2014, March 18. Power Content Label. [https://www.sce.com/wps/wcm/connect/16eadc87-3e6b-4610-8929-1178a2d66a03/2012\\_PowerContentLabel.pdf?MOD=AJPERES](https://www.sce.com/wps/wcm/connect/16eadc87-3e6b-4610-8929-1178a2d66a03/2012_PowerContentLabel.pdf?MOD=AJPERES).

<sup>85</sup> California Gas and Electric Utilities (CGEU). 2012, July. 2012 California Gas Report. [http://www.socalgas.com/regulatory/documents/cgr/2012%20CGR\\_Final.pdf](http://www.socalgas.com/regulatory/documents/cgr/2012%20CGR_Final.pdf).

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- USS-4 Would not have sufficient water supplies available to serve the project from existing entitlements and resources, and new and/or expanded entitlements would be needed.
- USS-5 Would result in a determination by the wastewater treatment provider which 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.
- USS-6 Would be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.
- USS-7 Would not comply with federal, state, and local statutes and regulations related to solid waste.

### 5.18.3 Environmental Impacts

The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.18-1: The SUP would not exceed wastewater treatment requirements of the Los Angeles Regional Water Quality Control Board. [Thresholds USS-1]**

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#### All SUP Projects

All wastewater that would be generated by improvements developed by SUP projects could be treated at wastewater treatment plants of the City of Los Angeles and the Sanitation Districts of Los Angeles County. The SUP would not develop land uses requiring wastewater treatment requirements separate from municipal wastewater treatment. Such requirements are issued for some types of land uses including some industrial uses and large agricultural operations.

Compliance with requirements for discharges to municipal storm water systems are addressed in Section 5.9, *Hydrology and Water Quality*.

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**Impact 5.18-2: The SUP would not require construction of new or expanded water treatment or wastewater treatment facilities. [Threshold USS-2, USS-5]**

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#### WATER TREATMENT FACILITIES

##### New Construction on New Property or Existing Campus

These projects could expand the total student capacity of the District. However, the SUP would not increase District enrollment. The SUP would accommodate forecast increases in enrollment due to projected increasing numbers of school-aged children as well as higher graduation rates. (Forecast trends in District enrollment are discussed in Chapter 4, *Project Description*.) The SUP therefore would not expand total water consumption within the District, and would not require construction of new or expanded water treatment facilities. Additionally, over the next 10 years student enrollment is projected to decline by about 2 percent. Impacts would be less than significant.

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### **Modernization, Repair, Replacement, Upgrade, Remodel, Renovation and Installation**

These projects would not expand capacity and would not expand District enrollment. Thus, these types of projects would not require construction of new or expanded water treatment facilities. No impact would occur.

### **WASTEWATER TREATMENT FACILITIES**

#### **New Construction on New Property or Existing Campus**

These types of projects could expand the total student capacity of the District. However, the SUP would not increase District enrollment. It would accommodate forecast increases in enrollment. The SUP would therefore not expand total water consumption within the District and would not require construction of new or expanded wastewater treatment facilities. Additionally, over the next 10 years student enrollment is projected to decline by about 2 percent. Impacts would be less than significant.

#### **Modernization, Repair, Replacement, Upgrade, Remodel, Renovation and Installation**

These projects would not expand capacity or District enrollment. Thus, these types of projects would not require construction of new or expanded wastewater treatment facilities, and no impact would occur.

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**Impact 5.18-3: The SUP would not cause significant environmental effects from the construction of new or expanded storm water drainage facilities. [Thresholds USS-3]**

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#### **New Construction on New Property or Existing Campus**

All new construction projects would be on or next to existing campuses. The vast majority of District schools are in built-out urban neighborhoods where much of the land surface is already impervious. Site-specific project design would include provisions to control surface runoff, and the requirements of applicable NPDES permits and Standard Urban Stormwater Mitigation Plans would be included. For example, the LAUSD requires the collection of storm water runoff, compliance with any applicable NPDES storm water permit, restricting sediment flows into storm drainage systems, and compliance with the District's Stormwater Technical Manual. Compliance with applicable laws, regulations, and standard LAUSD PDFs and practices during project siting, construction and operation would ensure that impacts associated with runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff, are less than significant.

#### **Modernization, Repair, Replacement, Upgrade, Remodel, Renovation and Installation**

The SUP would include storm water BMPs that would be adequately designed to accommodate site runoff so that it would not adversely impact downstream storm drain facilities or provide substantial additional sources of polluted runoff. In addition, California Government Code Section 53097 requires school districts to comply with city and county ordinances regulating drainage improvements and requiring review and approval of grading plans as they relate to design and construction of on-site improvements that affect drainage. LAUSD would comply with Section 53097 in implementing the SUP. This compliance would ensure that



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school projects would not have a significant adverse effect on the local drainage system. The implementation of a project's proposed engineered drainage improvements would ensure that impacts to existing or planned drainage would be less than significant.

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**Impact 5.18-4: SUP-related projects would have sufficient water supplies available from existing entitlements and resources, and new or expanded entitlements would not be needed. [Thresholds USS-4]**

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### **New Construction on New Property or Existing Campus**

These types of projects could expand the total student capacity of the District. However, the SUP would not increase District enrollment. It would accommodate forecast increases in enrollment. The SUP would therefore not expand total water consumption within the District. Impacts would be less than significant.

### **Modernization, Repair, Replacement, Upgrade, Remodel, Renovation and Installation**

Modernization, repair, upgrade, and renovation projects would not expand capacity or District enrollment. Thus, these types of projects would not require new or expanded water supplies, and no impact would occur.

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**Impact 5.18-5: Landfill facilities would be able to accommodate SUP-related solid waste and the District would comply with related solid waste regulations. [Thresholds USS-6 and USS-7]**

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## **SOLID WASTE DISPOSAL CAPACITY**

### **New Construction on New Property or Existing Campus**

These types of projects could expand the total student capacity of the District. However, the SUP would not increase District enrollment. The SUP would accommodate forecast increases in enrollment. The SUP would not expand total solid waste generation within the District, and would not require construction of new or expanded wastewater treatment facilities. Impacts would be less than significant.

### **Modernization, Repair, Replacement, Upgrade, Remodel, Renovation and Installation**

Modernization, repair, upgrade, and renovation projects would not expand capacity or District enrollment. Thus, these types of projects would not expand solid waste generation from District facilities, and no impact would occur.

## **SOLID WASTE REGULATORY COMPLIANCE**

### **All SUP Projects**

All projects implemented by the SUP would comply with the recycling requirement in AB 341. All SUP-related projects involving construction and/or demolition would comply with the construction and demolition (C&D) waste recycling/reuse requirement in California Green Building Standards Code Section 5.408, and LAUSD School Design Guide & Specification 01340, Construction & Demolition Waste Management, that requires the collection and separation of all C&D waste materials generated on-site, reuse

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### UTILITIES AND SERVICE SYSTEMS

or recycling on-site, transportation to approved recyclers or reuse organizations, or transportation to legally designated landfills, for the purpose of recycling salvaging and/or reusing a minimum of 75% of the C&D waste generated. Impacts would be less than significant.

#### 5.18.4 Applicable Regulations and Standard Conditions

##### Water

- California Water Code Sections 10608 et seq.: The Water Conservation Act of 2009
- Governor's Drought Declaration. January 17, 2014

##### Wastewater

- United States Code, Title 33, Sections 1251 et seq.: Clean Water Act.

##### Solid Waste

- Public Resources Code 40050 et seq.: Integrated Solid Waste Management Act of 1989
- Assembly Bill 341 (Chapter 476, Statutes of 2011)
- 2013 California Green Building Standards Code, Section 5.408

##### Lausd Standards

- School Design Guide & Specification 01340, Construction & Demolition Waste Management
- Project Design Features: PDF PS-1, PDF USS-1, PDF USS-2, PDF USS-3, PDF GHG-1, PDF GHG-2, PDF GHG-3, PDF GHG-4, and PDF GHG-5

#### 5.18.5 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and LAUSD Standards listed above, the following impacts would be less than significant: 5.18-1, 5.18-2, 5.18-3, 5.18-4, and 5.18-5.

#### 5.18.6 Mitigation Measures

No mitigation measures are required.

#### 5.18.7 Level of Significance After Mitigation

Impacts would be less than significant.