3.7 Utilities

This section describes the utility systems that serve the project site. Specifically, the section includes a discussion of water supplies and a determination as to whether sufficient water supplies are available to meet the project's needs.

A summary of the impact conclusions related to utilities is provided below. As discussed in the project's Initial Study (**Appendix A**) and in Section 3.0, subsection 3.3, Impacts Found to Be Less Than Significant, of this Draft EIR, the project would have a less than significant impact related to Impacts 3.7.1, 3.7.2, 3.7.3, 3.7.5, 3.7.6, 3.7.7, and 3.7.8. Therefore, these topics will not be discussed further in this Draft EIR.

Impact Number	Impact Topic	Impact Significance
3.7.1	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board	Less than significant
3.7.2	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	Less than significant
3.7.3	Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects	Less than significant
3.7.4	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed	Less than significant
3.7.5	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments	Less than significant
3.7.6	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs	Less than significant
3.7.7	Increased demand for electrical, natural gas, and telecommunications services	Less than significant
3.7.8	Comply with federal, state, and local statutes and regulations related to solid waste	Less than significant
3.7.9	Cause wasteful, inefficient, and unnecessary consumption of energy during project construction, operation, and/or maintenance, or preempt future energy development or future energy conservation	Less than significant
3.7.10	Place a substantial demand on regional energy supply or require significant additional capacity, the construction of which could result in environmental impacts or significantly increase peak and base period electricity demand	Less than significant
3.7.11	Cumulative Water Supply Impacts	Not cumulatively considerable

3.7.1 EXISTING SETTING

WATER SUPPLY AND DISTRIBUTION SYSTEM

The project site is located in South Pasadena and receives water services from the City as described below. The information below is extracted from the City of South Pasadena 2010 Urban Water Management Plan.

City of South Pasadena Water Division

The City of South Pasadena Water division is responsible for the production, treatment, and distribution of potable water in the city. The City is a member agency of the Upper San Gabriel Valley Municipal Water District (Upper District). The City has the legal right to pump groundwater from the Main San Gabriel Basin (Main Basin), can purchase imported water from the Metropolitan Water District of Southern California (Metropolitan) through the Upper District, and can purchase water from the City of Pasadena to serve a small portion of its service area. The City can purchase water from Metropolitan during peak demand or when well(s) are taken out of service for any reason.

Distribution System

The City has three active wells located in the Main Basin: Graves Well 2, Wilson Well 3, and Wilson Well 4. The City's Wilson Well 2 is currently inactive, but planned for rehabilitation in 2016-2017. The City has one Metropolitan connection, USG-2, with a capacity of 4,500 gallons per minute (gpm). The City has three interconnections with the City of Pasadena. The pumping capacities of Graves Well 2, Wilson Well 3, and Wilson Well 4 are approximately 750 gallon per minute (gpm), 2,100 gpm, and 1,100 gpm, respectively. The total pumping capacity is about 5,000 gpm. Water from Graves Well 2 is pumped into the Graves reservoir and water from the Wilson Wells is pumped into the Wilson reservoir.

The City's distribution system contains four pressure zones: the Raymond Zone, the Central Zone, the Bilicke Zone, and the Pasadena Zone. The Raymond Zone, the Central Zone, and the Bilicke Zone receive water from the City's system, while the Pasadena Zone, located at the top of Raymond Hill, receives water from the City of Pasadena. The City of South Pasadena can also deliver water to the Raymond Hill tank when the City of Pasadena is unable to supply water to the Pasadena Zone.

Water Supply

The City's three sources of water supply are groundwater, imported water, and purchased water from the adjacent City of Pasadena. Recycled water is not available in the City's service area due to the distance between the City's service area and the recycled water plants. The City has a prescriptive pumping right of 3,567.70 acre-feet and a pumper's share of 1.8052 percent of the Operating Safe Yield. If the City pumps more than the allowed amount of water (proportional share of the Operating Safe Yield), replacement water must be purchased from the Upper District to recharge the Main Basin. In addition, the City may purchase water from Metropolitan through USG-2, which has a capacity of 4,500 gpm. Furthermore, the City receives an average of approximately 20 acre-feet of water each year from the City of Pasadena, based on available data from the most recent nine years, to serve a small portion of the City's service area.

The City's past, current, and projected water supply, including groundwater, Metropolitan supplies, and City of Pasadena supplies, is shown on **Table 3.7-1**. The projected amount of water supply from groundwater production for the City for the next 20 years is based on the urban per capita water use target developed per SBX7-7 and on population projections. **Table 3.7-1** summarizes the projected water supply from groundwater, the Metropolitan supply, and the City of Pasadena supply from 2009–10 through 2029–30.

TABLE 3.7-1
WATER SUPPLY 2009–2030

Fiscal Year	Supply Source				Total
	Groundwater		Metropolitan USG-2	City of Pasadena	
	Main Basin	Percentage of Total Supply			
2009–10	4,713	99.5	0	25	4,738
2014–15	4,762	99.7	0	15	4,777
2019–20	4,261	99.6	0	15	4,276
2024–25	4,283	99.7	0	15	4,298
2029–30	4,304	99.7	0	15	4,319

Source: City of South Pasadena 2011

Drought Planning

The City has developed a four-stage rationing plan including up to a 50 percent reduction in water supply. The City's plan includes voluntary and mandatory stages. In the event of a prolonged and severe drought, the rationing programs could be implemented.

Average/Normal Water Year

The City's projected normal water year demand over the next 20 years in five-year increments was based on the City's 2015 and 2020 urban water use targets of 164 gallons per capita per day (gpcd) and 146 gpcd, respectively. The City's projected supply was based on the projected demand, as shown in **Table 3.7-1**. A comparison of the City's projected supply and demand during a normal water year is shown in **Table 3.7-2.** As shown in the table**,** the City's supply can meet demands during a normal water year for the next 20 years.

TABLE 3.7-2
SUPPLY AND DEMAND COMPARISON – NORMAL YEAR

	2015	2020	2025	2030
Supply Total	4,777	4,276	4,298	4,319
Demand Total	4,777	4,276	4,298	4,319
Difference (Supply minus Demand)	0	0	0	0

Source: City of South Pasadena 2011

Single Dry Year Supply

The City experienced a single-dry year during fiscal year 2006–07 and a normal water year during fiscal year 2005–06. The ratio between the normal water year and the single dry year was estimated for the City's supply and demand. This ratio and the projected supply and demand during a normal water year from **Table 3.7-2** was used to estimate the City's projected supply and demand during a single dry year over the next 20 years in five-year increments. A comparison of the City's projected supply and demand during a single-dry year is shown in **Table 3.7-3**. As shown, the City's supply can meet demands during a single dry year for the next 20 years.

TABLE 3.7-3
SUPPLY AND DEMAND COMPARISON – SINGLE DRY YEAR

	2015	2020	2025	2030
Supply Total	5,324	4,766	4,791	4,814
Demand Total	5,324	4,766	4,791	4,814
Difference (Supply minus Demand)	0	0	0	0

Source: City of South Pasadena 2011

Multiple Dry Year Supply

The City experienced multiple dry years during fiscal years 2006–07, 2007–08, and 2008–09. The ratio between the normal water year in 2005–06 and multiple dry years was estimated for the City's supply and demand. This ratio and the projected supply and demand during a normal water year from **Table 3.7-2** was used to estimate the City's projected supply and demand during multiple dry years over the next 20 years in five-year increments. The comparison of the City's projected supply and demand during multiple dry years is shown in **Table 3.7-4**. As shown in the table, the City's supply can meet demands during multiple dry years for the next 20 years.

TABLE 3.7-4
SUPPLY AND DEMAND COMPARISON – MULTIPLE DRY YEAR EVENTS

Multiple Dry Year		2015	2020	2025	2030
First Year	Supply Total	5,218	5,324	4,766	4,791
	Demand Total	5,218	5,324	4,766	4,791
	Difference (Supply minus Demand)	0	0	0	0
Second Year Supply	Supply Total	4,908	4,949	4,430	4,453
	Demand Total	4,908	4,949	4,430	4,453
	Difference (Supply minus Demand)	0	0	0	0
Third Year Supply	Supply Total	4,922	4,962	4,442	4,465
	Demand Total	4,922	4,962	4,442	4,465
	Difference (Supply minus Demand)	0	0	0	0

Source: City of South Pasadena 2011

Water Demand

The projected water use for the City should remain fairly consistent as South Pasadena is essentially built out with little room for extensive industrial, commercial, or residential development. Large-scale development would be confined to replacement of existing structures. Accordingly, water use should not be measurably impacted. The projected water use and the number of service connections by customer type estimated to the year 2030 are shown in **Table 3.7-5**. The projected water use is calculated based on the urban per capita water use target developed per SBX7-7 and population projections shown in **Table 3.7-6**.

TABLE 3.7-5
PAST, CURRENT, AND PROJECTED WATER DELIVERIES BY CUSTOMER TYPE (METERED DELIVERIES AFY)

Year	Single-Family Residential	Multi-Family Residential	Commercial	Institutional/ Governmental	Industrial	Landscape	Other	Total
2015	2,328	—	1,253	0	0	85	70	3,736
2020	2,328	—	1,253	0	0	85	70	3,736
2025	2,328	—	1,253	0	0	85	70	3,736
2030	2,328	—	1,253	0	0	85	70	3,736

Source: City of South Pasadena 2011

TABLE 3.7-6
CALCULATION OF PROJECTED WATER DEMAND (AFY)

Fiscal Year	Projected Population	Urban Water Use Target	Projected Water Demand
2014–15	26,002	164	4,777
2019–20	26,145	146	4,276
2024–25	26,280	146	4,298
2029–30	26,410	146	4,319

Source: City of South Pasadena 2011

Projected sales to other agencies and total water use are shown in **Table 3.7-7**. Based on the projected water uses, the City does not anticipate any problem meeting future water demands.

TABLE 3.7-7
PAST, CURRENT, AND PROJECTED WATER DEMAND TYPE (AFY)

Fiscal Year	Delivery to Customers	Sales to Other Agencies	Unaccounted Use	Total Demand
2014–15	4,681	0	96	4,777
2019–20	4,191	0	86	4,276
2024–25	4,212	0	86	4,298
2029–30	4,233	0	86	4,319

Source: City of South Pasadena 2011

ELECTRICITY/NATURAL GAS AND ENERGY

Electricity/Natural Gas Services

Southern California Edison (SCE) provides electrical services to South Pasadena through state-regulated public utility contracts. Natural gas services are provided by Southern California Gas Company (SCGC).

SCE provides electrical service to customers within a 50,000-square-mile area covering nearly 14 million people in 11 counties in the southern half of California, including South Pasadena. It provides electricity to users via 16 utility interconnections and nearly 5,000 different transmission and distribution circuits. SCE facilities include hydropower, nuclear, and coal-powered facilities: the Big Creek Hydroelectric System (a collection of six major reservoirs, 27 dams, and nine power plants in the Central Sierra Nevada Mountains northeast of Fresno), the San Onofre Nuclear Generating Station (SONGS) in Orange County near San Clemente (currently not in production), and the Mojave Generating Station in the eastern high desert north of Riverside County. SCE also maintains and operates transmission and distribution infrastructure to provide purchased power to end users throughout its service area.

As previously stated, natural gas services are provided by SCGC, which owns and operates two natural gas storage fields in Southern California. These storage fields help meet peak seasonal demand and allow Southern California customers to secure natural gas supplies more efficiently. SCGC also owns and operates four underground storage facilities located around Southern California. These facilities provide SCGC with a total of 133.1 billion cubic feet (Bcf) of storage capacity, of which 80 Bcf is allocated to its core residential, commercial, and small industrial customers. About 4 Bcf is used for system balancing and the remaining capacity is available to other customers. The 2008 completion of the Costa Azul liquefied natural gas terminal in Baja California, Mexico, has also expanded the supply of natural gas available to Southern California.

Together with its sister firm, San Diego Gas & Electric, SCGC serves all of Southern California, a total of over 20,000 square miles, including South Pasadena.

ENERGY

Energy usage is typically quantified using the British thermal unit (BTU). As a point of reference, the approximate amounts of energy contained in common energy sources are as follows:

TABLE 3.7-8
BTUS BY ENERGY SOURCE

Energy Source	BTUs
Gasoline	120,388–124,340 per gallon
Diesel Fuel	138,490 per gallon
Natural Gas (compressed gas)	22,453 per pound
Electricity	3,414 per kilowatt-hour

Sources: USDOE 2014

Total energy usage in California was 7,641 trillion BTUs in 2012, which equates to an average of 201 million BTUs per capita. Of California's total energy usage, the breakdown by sector is 38.5 percent transportation, 22.8 percent industrial, 19.3 percent commercial, and 19.2 percent

residential. Electricity and natural gas in California are generally consumed by stationary users such as residences and commercial and industrial facilities, whereas petroleum consumption is generally accounted for by transportation-related energy use (EIA 2015). In 2014, taxable gasoline sales (including aviation gasoline) in California accounted for 14,702,632,422 gallons of gasoline (BOE 2015).

3.7.2 REGULATORY FRAMEWORK

WATER SUPPLY AND SERVICES

Federal

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 but does not regulate private wells that serve fewer than 25 individuals.

The act authorizes the US Environmental Protection Agency (EPA) to set national health-based standards for drinking water to protect against both naturally occurring and man-made contaminants that may be found in drinking water. Originally, the Safe Drinking Water Act focused primarily on treatment as the means of providing safe drinking water at the tap. The 1996 amendments changed 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 is intended to ensure the quality of drinking water by protecting it from source to tap (EPA 2015).

State

California Water Plan Update 2013

The California Water Plan is the state's blueprint for integrated water management and sustainability. The California Department of Water Resources (DWR) updates the Water Plan approximately every five years. California Water Plan Update 2013 is the latest edition of the water plan. The California Water Plan provides a framework and resource management strategies promoting two major initiatives: integrated regional water management that enables regions to implement strategies appropriate for their own needs and helps them become more self-sufficient, and improved statewide water management systems that provide for upgrades to large physical facilities, such as the State Water Project, and statewide management programs essential to California's economy. California Water Plan Update 2013 also contains a first-of-its-kind finance plan (DWR 2014).

Urban Water Management Planning Act

In 1983, the California Legislature enacted the Urban Water Management Planning Act (Water Code Sections 10610–10656). The act states that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 acre-feet of water annually, should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. The act

describes the contents of urban water management plans as well as how urban water suppliers should adopt and implement the plans. It is the intention of the act to permit levels of water management planning commensurate with the numbers of customers served and the volume of water supplied (DWR 2012b). The City of South Pasadena adopted its 2010 Urban Water Management Plan (UWMP) in 2011.

Senate Bill 610

Senate Bill (SB) 610 (Water Code Section 10910(c)(2)) makes changes to the Urban Water Management Planning Act to require additional information in Urban Water Management Plans if groundwater is identified as a source available to the supplier. Required information includes a copy of any groundwater management plan adopted by the supplier, a copy of the adjudication order or decree for adjudicated basins, and if nonadjudicated, whether the basin has been identified as being overdrafted or projected to be overdrafted in the most current DWR publication on that basin. If the basin is in overdraft, the plan must include current efforts to eliminate any long-term overdraft. A key provision in SB 610 requires that any project subject to the California Environmental Quality Act (CEQA) supplied with water from a public water system be provided a specified water supply assessment, except as specified in the law. Water supply assessments are required under SB 610 for projects that include 500 units of residential development (would demand an amount of water equivalent to, or greater than, the amount of water required by a project with 500 dwelling units) or a project that would increase the number of the public water system's existing service connections by 10 percent (DWR 2012a).

Assembly Bill 901

Assembly Bill (AB) 901 requires Urban Water Management Plans to include information relating to the quality of existing sources of water available to an urban water supplier over given time periods and the manner in which water quality affects water management strategies and supply (DWR 2012a).

Assembly Bill 1420

Effective January 1, 2009, AB 1420 amended the Urban Water Management Planning Act (Water Code Section 10610 et seq.) to require that water management grants or loans made to urban water suppliers and awarded or administered by the DWR, the State Water Resources Control Board, or the California Bay-Delta Authority or its successor agency be conditioned on implementation of the water demand management measures.

Governor's 20x2020 Program

On February 28, 2008, California Governor Schwarzenegger introduced a seven-part comprehensive plan for improving the Sacramento-San Joaquin Delta. As part of the plan, the governor directed state agencies to prepare and implement a program to achieve a 20 percent reduction in statewide average per capita water use by year 2020 (20x2020 Program). Several state agencies involved in water planning and management have joined together to form an agency team to direct the development and implementation of the 20x2020 Program. The program's focus is to understand current urban water use patterns in order to propose a practical and effective conservation strategy. The process of developing this program involves five steps: data analysis, baseline definition, preliminary targets development, conservation potential identification, and implementation planning.

California Building Energy Efficiency Standards

In general, the California Building Energy Efficiency Standards require the design of building shells and building components to conserve energy. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The California Energy Commission recently adopted changes to the 2013 Building Energy Efficiency Standards contained in the California Code of Regulations, Title 24, Part 6 (also known as the California Energy Code) and associated administrative regulations in Part 1 (collectively referred to here as the standards). The amended standards took effect in the summer of 2014. The 2013 Building Energy Efficiency Standards are 25 percent more efficient than previous standards for residential construction and 30 percent better for nonresidential construction. The standards offer builders better windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in homes and businesses. Energy-efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption.

The California Green Building Standards

The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, is a statewide mandatory construction code that was developed and adopted by the California Building Standards Commission and the Department of Housing and Community Development. The CALGreen standards require new residential and commercial buildings to comply with mandatory measures under the topics of planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality. CALGreen also provides voluntary tiers and measures that local governments may adopt that encourage or require additional measures in the five green building topics. The most recent update to the CALGreen Code was adopted in 2013 and went into effect July 1, 2014.

California Environmental Quality Act Guidelines

CEQA Guidelines Appendix F, Energy Conservation, requires consideration of project impacts on energy and focuses particularly on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy (Public Resources Code Section 21100[b][3]). The potentially significant energy implications of a project must be considered in an EIR to the extent relevant and applicable to the project.

Local

City of South Pasadena 2010 Urban Management Plan

The plan is an update to the City of South Pasadena Water Department's (City) most recent plan, dated December 2005, which was prepared according to the Urban Water Management Planning Act, California Water Code, Division 6, Part 2.6. This plan describes the management tools and options used by the City to maximize resources and minimize the need to import water from other regions. Chapter 5 of the plan includes demand management measures.

City of South Pasadena Water Conservation Ordinance

Chapter 35 of City of South Pasadena Municipal Code establishes standards and procedures for the design, installation, and management of water-conserving landscapes in order to utilize available plant, water, and land resources to avoid excessive landscape water demands while ensuring higher-quality landscape design. The ordinance requires that a landscape plan be

prepared and submitted for approval prior to issuance of building permits. The chapter prohibits the following activities:

- hosing down paved areas
- runoff into streets or on adjacent property
- daytime (9:00 a.m. and 5:00 p.m.) watering of landscaping
- washing of vehicles using continuously running hose
- serving water in restaurants without customer request
- failure to repair leaks in a timely manner
- non-recycling decorative fountains

3.7.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the following State CEQA Guidelines Appendix G thresholds of significance. A water service impact is considered significant if the project would:

1) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

2) 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.

3) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

4) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.

5) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

6) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.

7) Result in increased demand for electrical, natural gas, and telecommunications services.

8) Comply with federal, state, and local statutes and regulations related to solid waste?

As discussed in the project's Initial Study (**Appendix A**) and in Section 3.0, subsection 3.3, Impacts Found to Be Less Than Significant, of this Draft EIR, the project would have a less than significant impact to standards of significance 1, 2, 3, 5, 6, 7, and 8. Therefore, these standards will not be discussed further in this Draft EIR.

Electrical/ Natural Gas and Energy Impacts

According to Appendix F of the CEQA Guidelines, significant long-term operational or direct energy impacts would occur if the project would:

1) Cause wasteful, inefficient, and unnecessary consumption of energy during project construction, operation, and/or maintenance, or preempt future energy development or future energy conservation.

2) Place a substantial demand on regional energy supply or require significant additional capacity, the construction of which could result in environmental impacts or significantly increase peak and base period electricity demand.

METHODOLOGY

Water Services

Evaluation of potential water service impacts was based primarily on the City of South Pasadena's 2010 Urban Water Management Plan. The analysis includes a comparison of potential water demand and supplies with the project, as well as proposed and anticipated development in the surrounding area.

Electrical/Natural Gas and Energy Standards

The impact analysis focuses on the three sources of energy that are relevant to the project: electricity, natural gas, and transportation fuel for vehicle trips associated with new development. The analysis of electricity/natural gas usage is based on California Emissions Estimator Model (CalEEMod) air quality and greenhouse gas emissions modeling, which quantifies energy use for occupancy with and without mitigation. The results of CalEEMod modeling are included in **Appendix C** of this Draft EIR. Modeling was based primarily on the default settings in the computer program for the south coast. The amount of fuel use was estimated using the California Air Resources Board's EMFAC2011 computer program, which provides assumptions for typical daily fuel usage in Los Angeles County.

IMPACTS AND MITIGATION MEASURES

Water Supply Demand and Environmental Effects (Standard of Significance 4)

Impact 3.7.4 The project would not increase demand for water supply beyond what was considered in the City's Urban Water Management Plan. Therefore, increased groundwater production would not be required to serve the project. This would be a **less than significant** impact.

Table 3.7-6 above identifies the City's anticipated water demand through 2030. This projected water demand is based on South Pasadena's anticipated population and the City's urban water use targets. South Pasadena's baseline daily per capita water use was determined to be 182 gallons per capita per day (gpcd), based on the highest value calculated over a

continuous 10-year period between 1995–96 and 2008–09. The UWMP further establishes an urban water use target of 146 gpcd for 2020, with an interim target of 164 gpcd for 2015.

The anticipated population of the proposed project is 200 residents. Based on this conservative population estimate and using the worst-case baseline daily per capita water use of 182 gpcd, the project would increase water demand by 36,400 gallons per day (gpd).[1] This represents approximately 0.8 percent of projected citywide demand during a normal year and 0.7 percent of projected citywide demand during a single dry year (City of South Pasadena 2011). As the City achieves its 2015 and 2020 urban water use targets, the project's contribution to the City's water demand would be expected to be reduced to 32,800 gpd and 29,200 gpd, respectively.

Table 3.7-6 also anticipates South Pasadena's future water needs based on population estimates. According to the Southern California Association of Governments (SCAG), the city's population was approximately 25,600 in 2008 and is projected to grow to approximately 26,300 by 2020. More recently, the California Department of Finance (2015) estimated that the city's 2015 population was 26,174. With the project, the city's population would increase to approximately 26,374. The UWMP assumed a city population of 26,002 in fiscal year 2014–15 and an increase in population to 26,410 by fiscal year 2029–30. The 2010 UWMP demonstrates that the City of South Pasadena has adequate water supplies to serve this anticipated population under normal, single dry year, and multiple dry year conditions. Therefore, the City is expected to be able to serve the project with existing water supplies, and impacts would be less than significant.

It should be also noted that the project's water demand would be reduced due to required compliance with the water conservation measures identified in Articles II and III of Chapter 35 of the City of South Pasadena Municipal Code as described above.

In addition, the City of South Pasadena has water shortage plans in place. The 2010 UWMP identifies a four-stage rationing plan, including up to a 50 percent reduction in water supply. In the event of a prolonged and severe drought, the rationing programs could be implemented, with Stages I and II applying voluntary conditions and Stages III and IV applying mandatory conditions. Due to current drought conditions, on August 20, 2014, the South Pasadena City Council took action to implement Stage I of the City's water shortage plan. The City's water conservation measures and water shortage plans further enhance the City's ability to serve the project with existing water supplies.

Because the project's growth is accommodated in the City's water supply projections, the project would have a **less than significant** impact on future water supply.

Mitigation Measures

None required.

[1] The UWMP calculates the City's water usage by population only, which is inclusive of the water usage by commercial entities. Thus, the project's commercial water demand is not calculated separately. Regardless, the project's water demand estimates are considered conservative, because the acreage of landscaping and corresponding irrigation per resident would be far less for the project than citywide.

Electrical/Natural Gas and Energy (Standards of Significance 1 and 2)

Impact 3.7-9 The proposed project would result in increased energy demand. This impact is considered **less than significant**.

Energy Consumption

Energy consumption associated with residential and commercial uses proposed by the project is summarized in **Table 3-7.9**. This usage would constitute approximately 0.0009 percent of the typical annual energy consumption of residential and nonresidential square footage in Los Angeles County as reported by the CEC's California Energy Consumption Database (2015) [5,023,857,938 BTUs for the project/524,801,510,000,000 BTUs for all residential and commercial uses in Los Angeles County = 0.0009 percent].

TABLE 3.7-9
ENERGY CONSUMPTION FROM PROPOSED PROJECT

Source	Kilowatt Hours Annually (Electricity)	kBTU Annually (Natural Gas)	BTU Equivalent Annually (All Energy Combined)
Proposed Project	867,367	2,062,667	**5,023,857,938**

Source: CalEEMod 2013.2.2.

The proposed project would be required to comply with Title 24 Building Energy Efficiency Standards, which provide minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting. Implementation of the Title 24 standards significantly reduces energy usage. Furthermore, SCE is subject to California's Renewables Portfolio Standard (RPS). The RPS 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. Renewable energy is generally defined as energy that comes from resources that are naturally replenished within a human timescale such as sunlight, wind, tides, waves, and geothermal heat. The increase in reliance on such energy resources further ensures projects will not result in the waste of the finite energy resources.

Vehicle Trips Fuel Consumption

According to the CalEEMod modeling prepared for the project, the proposed project would generate 7,731 average daily vehicle miles traveled. These additional daily traffic trips in Los Angeles County would result in the consumption of 430 gallons of automotive fuel daily **(Appendix H)**. Per EMFAC2011, 2,737,170 gallons of automotive fuel are consumed daily throughout all of Los Angeles County. Therefore, the increase of fuel usage generated by the proposed project would constitute approximately 0.01 percent (430 gallons of automotive fuel for the project/2,737,170 for the county = 0.01 percent), which is not considered substantial.

Construction Fuel Consumption

Construction activities would require the use of gasoline, diesel fuel, and other fuels. Energy use during construction typically involves the use of motor vehicles both for transportation of workers and equipment and for direct construction actions such as the use of cranes or lifts. Additional energy would be used for power tools and equipment used on-site, including but not limited to

gas generators, air compressors, air handlers and filters, and other typical direct construction energy uses.

Using ratios provided in the Climate Action Registry (2009) General Reporting Protocol Version 3.1, construction associated with the proposed project would require approximately 72,118 gallons of diesel fuel **(Appendix H)** for data outputs. This usage would constitute approximately 0.0004 percent (72,118 gallons for project/14,532,944,431 gallons for state = 0.0004 percent) of typical annual fuel usage in the state as reported by the state Board of Equalization and California Energy Commission.

The demand for fuel and other energy resources would not result in the need for new or altered facilities given the temporary nature of construction. Furthermore, construction activities are not anticipated to result in an inefficient use of energy, as construction contractors would purchase their own gasoline and diesel fuel from local suppliers and would conserve the use of their supplies to minimize costs to the individual project. For these reasons and because of the temporary nature of construction activities, this would be a less than significant impact.

For the reasons described above, the project would not cause wasteful, inefficient, or unnecessary consumption of energy during project construction, operation, or maintenance, and would not preempt future energy development or future energy conservation. Impacts would be less than significant.

3.7.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting for water services, including supplies and related infrastructure, consists of South Pasadena.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Water Supply Impacts (Standards of Significance 4)

Impact 3.7.9 The project, in combination with other existing, planned, proposed, approved, and reasonably foreseeable development in the city, would increase the cumulative demand for water supplies and related infrastructure. The project's contribution to cumulative water supply and infrastructure impacts would be **not cumulatively considerable**.

Based on the City of South Pasadena Urban Water Management Plan the City would have sufficient water to accommodate future growth in South Pasadena. Because of the city's developed nature, all developments expected in the city would be small-scale infill developments, similar to the proposed project. Since the project would require approximately 0.8 percent of current supplies and future projects would be similar in scope, it is assumed that an adequate supply will be available to meet cumulative demand. Additionally, given the project's negligible increase in overall water demand, its contribution to this impact would be **not cumulatively considerable**.

Mitigation Measures

None required.

3.7.5 REFERENCES

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