5.14 UTILITIES AND SERVICE SYSTEMS

This section of the DEIR evaluates the potential for implementation of the Solana Residential Development Project to impact wastewater conveyance and treatment; water supplies, treatment, and conveyance; and solid waste disposal in the community of Torrance. The CEQA Guidelines Update effective December 2018 added an Energy section, including two thresholds, to the Environmental Checklist Form (CEQA Guidelines Appendix G); Energy is addressed in this Section.

Storm drainage systems are not addressed in this Section pursuant to the aforesaid CEQA Guidelines Update; storm drainage systems are addressed in Section 5.8, *Hydrology and Water Quality*, of this DEIR.

The analysis in this section is based, in part, upon questionnaire responses by service providers of the project area and the following technical report:

- Hydraulic Network Analysis for Fire and Domestic Water Service, KHR Associates, October 1, 2018
- Solana Torrance, Sewer Area Study, KHR Associates, December 30, 2017
- Written response to Stormwater service questionnaire by Ted Symons, Associate Civil Engineer, Torrance Community Development Department, May 23, 2017
- Written response to Water service questionnaire by Michael Ritchey, Associate Civil Engineer, Torrance Community Development Department, June 8, 2017.
- Written response to Wastewater service questionnaire by Los Angeles County Sanitation District, May 31, 2017

Complete copies of the questionnaire responses and technical reports are included in the Technical Appendices to this DEIR (Appendices L1, L2 ,L3, L4, and L5).

Ten comments relating utilities and service systems were received in response to the Initial Study (IS)/Notice of Preparation (NOP) circulated for the proposed project, primarily regarding the potential impacts on the increase consumption of water and other utilities. Concerns were also received regarding the aging infrastructure in the City. The potential impacts of the utilities and services systems in the City have been analyzed in this section.

5.14.1 Wastewater Treatment and Collection

5.14.1.1 ENVIRONMENTAL SETTING

Regulatory Background

Federal

Clean Water Act

The federal Clean Water Act (CWA), United States Code, Title 33, Sections 1251 et seq., established regulations to control the discharge of pollutants into the waters of the United States and regulates water quality standards for surface waters. Under the CWA, the US Environmental Protection Agency (EPA) is authorized to set wastewater standards for industry and runs the National Pollutant Discharge Elimination System (NPDES) permit program. Under the NPDES program, permits are required for all new developments that generate discharges directly into waters of the United States. Additionally, Sections 1251 et seq. of the CWA require wastewater treatment of all effluent (or sewage and wastewater) before it is discharged into surface waters.

Local

Los Angeles Regional Water Quality Control Board

Waste discharge requirements pursuant to NPDES regulations for the Sanitation Districts of Los Angeles County (LACSD) water reclamation plant (WRP) treatment of wastewater from the proposed project area—the Joint Water Pollution Control Plant (JWPCP) in the City of Carson—are set forth in Los Angeles Regional Water Quality Control Board (RWQCB) Order No. R4-2017-0180, issued in 2017. This order sets discharge prohibitions—e.g., high-level radiological wastes or discharges that degrade water supplies—and effluent limitations and discharge specifications.

Sanitation Districts of Los Angeles County

Capital improvements to the LACSD water reclamation plants are funded from connection fees charged to new developments, redevelopments, and expansions of existing land uses. The connection fee is a capital facilities fee used to provide additional conveyance, treatment, and disposal facilities (capital facilities) required by new users connecting to the LACSD's sewerage system or by existing users who significantly increase the quantity or strength of their wastewater discharge. The Connection Fee Program ensures that all users pay their fair share for any necessary expansion of the system. Estimated wastewater generation factors used in determining connection fees in LACSD's 22-member districts are set forth in the Connection Fee Ordinance for each respective district, available on LACSD's website. The project site is in District 5 of the Sanitation Districts (LACSD 2015).

LACSD establishes discharge limits for wastewater discharges within its service areas to prevent discharge of substances to LACSD sewers that would exceed the treatment capacities or otherwise damage LACSD water reclamation facilities (LACSD 2018a). The discharge limits enable water reclamation facilities to maintain their effluents within Los Angeles RWQCB wastewater discharge requirements. The LACSD has an industrial

pretreatment program where industries exceeding discharge limits pretreat liquid wastes before discharging them to sewers.

Existing Conditions

Existing Wastewater Generation and Wastewater Treatment Facilities

Existing wastewater generation is nonexistent due to the undeveloped nature of the project site. LACSD provides wastewater treatment for the project site at its JWPCP in the City of Carson. The JWPCP provides primary and secondary treatment for an average of 260 million gallons per day (mgd) of wastewater from the Los Angeles region. The plant has a total permitted capacity of 400 mgd and is the largest of LACSD's treatment plants (LACSD 2018b).

The influent to JWPCP is treated by bar screens, grit chambers, sedimentation tanks, anaerobic digesters, biological reactors, clarifiers, dissolved air flotation, and cryogenic oxygen. Bleach is injected into the effluent for final disinfection (LACSD 2018b).Treated effluent is discharged into the ocean through two outfalls that extend one and a half miles into the ocean, 200 feet below sea level. This effluent is discharged by gravity or using pumps totaling 170 mgd capacity.

Sewers

The City of Torrance owns, operates, and maintains 85 percent of the sewer system in the City. The remaining 15 percent of the system is owned, operated, and maintained by the LACSD. Most of the City's sewer system consists of 8-inch vitrified clay pipe (VCP) and wastewater generated from the project site would be conveyed into the JWPCP in the City of Carson.

New sewer connections to the development are proposed to be connected to the existing 8-inch VCP sewer main in Via Valmonte at an existing sewer manhole. According to the 14-day continuous sewer flow monitoring study performed by KHR Associates, the maximum flow capacity of the sewer mains, to which the proposed project will be connected to, ranges from 0.431 cubic feet per second (cfs) to 1.00 cfs.

5.14.1.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project:[1]

U-1 Would require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

[1] The significance thresholds set forth here are from the CEQA Guidelines Update approved by the California Office of Administrative Law in December 2018. Threshold related to exceeding wastewater treatment requirements of the applicable Regional Water Quality Control Board was deleted from the CEQA Guidelines Appendix G in the CEQA Guidelines Update.

U3 Would result in a determination by the wastewater treatment provider which serves or may serve the project that has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

5.14.1.3 PLANS, PROGRAMS, AND POLICIES

The following regulatory requirements are measures outlined governing solid waste, water, and wastewater, to ensure utility infrastructure conditions and improvements comply with all applicable codes and policies during project development.

Regulatory Requirements

RR USS-1 The proposed project will be designed, constructed, and operated in accordance with the LACSD's Wastewater Ordinance. All wastewater discharges into LACSD facilities shall be required to comply with the discharge standards set forth to protect the public sewage system.

RR USS-2 The project's sewer, storm drain, and other utility infrastructure improvements will be designed, constructed, and operated in accordance with the applicable regulations in the Los Angeles County Code, which incorporates by reference the California Building Code, the California Electrical Code, the California Mechanical Code, the California Plumbing Code, the California Fire Code, and the Green Building Standards Code.

RR HAZ-1 Any project-related hazardous materials and hazardous wastes will be transported to and/or from the project in compliance with any applicable State and federal requirements, including the U.S. Department of Transportation regulations listed in the Code of Federal Regulations (Title 49, Hazardous Materials Transportation Act); California Department of Transportation (Caltrans) standards; and the California Occupational Safety and Health Administration (Cal/OSHA) standards.

RR HAZ-2 Any project-related hazardous waste generation, transportation, treatment, storage, and disposal will be conducted in compliance with the Subtitle C of the Resource Conservation and Recovery Act (RCRA) (Code of Federal Regulations, Title 40, Part 263), including the management of non-hazardous solid wastes and underground tanks storing petroleum and other hazardous substances. The project will be designed and constructed in accordance with the regulations of the Los Angeles County Fire Department, which serves as the designated Certified Unified Program Agency (CUPA) and which implements State and federal regulations for the following programs: (1) Hazardous Waste Generator Program, (2) Hazardous Materials Release Response Plans and Inventory Program, (3) California Accidental Release Prevention (CalARP) Program, (4) AST Program, and (5) UST Program.

RR HYD-2 The project will be constructed and operated in accordance with the Los Angeles County MS4 Permit (Order No. R4-2012-0175), as amended by Order WQ 2015-0075 and Order R4-2012-0175-A01. The MS4 Permit requires new development and redevelopment projects to retain on-site a specified volume of stormwater runoff from a design storm event. The Low Impact

Development Standards Manual provides the guidance on how new development and redevelopment projects can meet these on-site retention requirements through the use of stormwater quality control measures.

5.14.1.4 ENVIRONMENTAL IMPACTS

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.14-1: Project-generated wastewater could be adequately treated by the Sanitation Districts of Los Angeles County's Joint Water Pollution Control Plant, but require infrastructure improvements. [Thresholds U-1 (partial), and U-3]

Impact Analysis: As described in Chapter 3, *Project Description*, of this DEIR, the proposed project would involve construction of 248 apartment units in three 5-story buildings, parking structure, and community room/gym. Development would also include construction of sewers connecting to an existing eight-inch sewer main in Via Valmonte.

Wastewater Generation

As shown in Table 5.14-1, *Projected Wastewater Generation*, the anticipated daily wastewater generation onsite is estimated to be 0.078 cubic feet per second (cfs) and a peak flow of 0.26 cfs (KHR, 2017). This estimate is based on typical flow factors for condominiums.

Table 5.14-1 Projected Wastewater Generation

Unit Type	Total Units	Flow Factor (gpd/unit)	Average Daily Flow (gpd)	Average Daily Flow (cfs)	Peak flow (cfs)
One Bedroom Multi-Family	135	195	26,325	0.041	---
Two Bedroom Multi-Family	113	195	22,035	0.034	---
Leasing Office/ Community Center	5,000 SF	600 gpd/SF 200 gpd/SF	2200	0.003	---
Total	**Not applicable**	**Not applicable**	**50,560**	**0.078**	**0.26**

Source: KHR, 2017
SF = square feet

With the anticipated increase of 0.26 cfs in peak flow from the proposed project, the total peak flow will cause the sewer mains in 242nd Street and Hawthorne Boulevard to exceed 50 percent full according to the sewer flow monitoring study as shown in Table 5.14-2, Comparison of Existing and Proposed Sewer Flows to Sewer Capacity (KHR, 2017). Therefore, the existing sewer mains are undersized and will require improvements to accommodate the increase. Sewers will need to be upsized to a 12" VCP.

Table 5.14-2 Comparison of Existing and Proposed Sewer Flows to Sewer Capacity

Manhole Location	Existing Peak Flow (cfs)	Proposed Peak Flow (cfs)	Total Peak Flow (cfs)	Existing Flow Capacity* (cfs)
Newton Street	0.030	0.26	0.290	0.649
Park Street	0.063	0.26	0.323	0.98
Alley between Park Street and Hawthorne Boulevard	0.180	0.26	0.440	0.72
Hawthorne Boulevard at 242nd Street	0.323	0.26	0.583	0.431

Source: KHR, 2017
*=numbers shown represent capacity at 50 percent

The project includes the upsizing from an 8-inch to a 12-inch line for 163 linear feet at the 242nd Street segment of the sewer system from the alley to Hawthorne Boulevard and for 259 linear feet in Hawthorne Boulevard from 242nd Street to Pacific Coast Highway. The total upsize length is 422 linear feet. With this upsizing, the lines would be sufficient to convey the anticipated generation of wastewater. Without the implementation of infrastructure improvements, impacts would be potentially significant due to flow capacity deficiency.

The nearest 12-inch LACSD Madison Street Trunk Sewer located in Hawthorne Boulevard at Pacific Coast Highway has a capacity of 4.6 cfs and conveyed a peak flow of 0.5 cfs when last measured in 2011 (KHR 2017). The average daily increase in wastewater flow estimated for the proposed project—0.078 cfs—is 1.7 percent of the design capacity of the 12-inch trunk sewer and the proposed project together with the existing flow is estimated to generate 45 percent of total sewage flow. Therefore, project flows are well within the design capacity of the existing trunk sewer line. Additionally, LACSD has a system in place to effectively monitor and account for proposed sewer demand changes related to general plans, specific plans, and individual projects. Potential impacts to LACSD facilities would be less than significant.

Wastewater Treatment

Wastewater generated by the project would be treated at JWPCP, which has a design capacity of 400 mgd. JWCP treats approximately 260 mgd of wastewater per day which leaves a remaining capacity of 140 mgd. The projected average daily peak wastewater flow generated by the project at buildout—168,042 gpd—would only represent 0.04 percent of the facility's design capacity and 0.12 percent of its remaining capacity. The proposed project would not have a significant impact on JWPCP's ability to treat wastewater in the area. Impacts related to wastewater treatment would be less than significant.

Regional Water Quality Control Board Wastewater Discharge Requirements

As required under regulatory requirement RR USS-1, the proposed project would comply with LACSD discharge requirements—using industrial pretreatment where needed—and JWPCP operations would comply with Los Angeles RWQCB Order No. R4-2017-0180. Regulatory requirements RR HAZ-1 and HAZ-2 require compliance with state and federal regulations governing transport and disposal of hazardous materials, and thus are also pertinent to discharge limits for sewers. Compliance with these regulatory requirements would ensure wastewater generated by project buildout would comply with existing wastewater discharge requirements of the Los Angeles RWQCB.

5.14.1.5 CUMULATIVE IMPACTS

Wastewater Treatment Capacity

The proposed project along with cumulative projects would result in an increase in demand for wastewater conveyance and treatment. The area considered for cumulative impacts is the service area of the JWPCP, which is owned and operated by the LACSD. The JWPCP serves approximately 3.5 million people in the southern and eastern parts of the Los Angeles Basin (LACSD 2018cb). The capacities of the Districts' wastewater treatment facilities are based on the regional growth forecast adopted by the Southern California Association of Governments (SCAG). Population growth would increase wastewater generation and the population in Los Angeles County is expected to increase by 11 percent from 2017-2035, as shown in Table 5.14-3, *Projected Cumulative Wastewater Treatment Demand Joint Water Pollution Control Plant*. The estimated growth in the JWPCP's service area is pro-rated from estimated growth in Los Angeles County. Wastewater flows through the JWPCP are projected to increase to 285 mgd in 2035 in proportion to estimated population growth in Los Angeles County over the 2017-2035 period. The JWPCP currently has a 400 mgd capacity and produces an average recycled water flow of 253.4 mgd. Therefore, there is sufficient wastewater treatment capacity in the region to accommodate the projected future growth. Cumulative impacts to wastewater treatment capacity would be less than significant.

Table 5.14-3 Projected Cumulative Wastewater Treatment Demand Joint Water Pollution Control Plant

JWPCP wastewater flows, 2017	Los Angeles County population				JWPCP Projected Wastewater Flows for 2035
	Estimate for January 2017, CDF	Projection for 2035, SCAG	Increase for 2017-2035	Percent Increase, 2017-2035	
256.8 mgd	10,231,271	11,353,000	1,121,729	11%	285 mgd

Sources: LACSD 2018c; CDF 2018; SCAG 2012.

Cumulative impacts related to wastewater conveyance depend on the location and size of the project as well as phasing. In addition to the proposed project, a new mixed-use project, anticipated to have 11 condominiums and 2,525 square feet of commercial space, is proposed at the northwest corner of Via Valmonte and Hawthorne Boulevard, which would add an additional 0.0052 cfs of peak flow at buildout. With the additional increase of peak flow from the proposed mixed-use project along with the peak flow of 0.26 cfs from the proposed Project, the peak flow of the Trunk Sewer located in Hawthorne Boulevard at Pacific Coast Highway—0.5 cfs—is still adequate. All future development within the City of Torrance and the LACSD service area would be reviewed on a project-by-project basis to verify that existing capacity exists to convey the wastewater generated with the new development. Future cumulative projects developed in accordance with the County's General Plan would also be required to comply with LACSD discharge limits and Los Angeles RWQCB waste discharge requirements. In addition, development projects would be subject to payment of fees prior to connecting to the LACSD's facilities. Therefore, adherence to these regulatory requirements would reduce cumulative impacts related to wastewater conveyance to be less than significant.

Sewers

Impacts of buildout under the proposed project to sewers would be limited to sewers in and near the project site. LACSD would require future projects to prepare sewer capacity studies to determine whether sewer

upgrades are needed. Therefore, impacts of the proposed project would not combine with impacts of other cumulative development projects in Los Angeles County, or with impacts of development projects in LACSD's service area outside the County. Cumulative impacts to sewer would be less than significant.

5.14.1.6 EXISTING REGULATIONS AND STANDARD CONDITIONS

This analysis assumes compliance with all applicable laws. The following codes, rules, and regulations pertaining to wastewater conveyance and treatment were described in detail in Section 5.14.1.1 of this DEIR and are listed below.

Federal

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

Regional

- Los Angeles Regional Water Quality Control Board: Order No. R4-2017-0180
- LACSD District 22, Connection Fee Ordinance

5.14.1.7 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Without mitigation, the following impacts would be **potentially significant**:

- Impact 5.14-1 Wastewater generated from Project development would be sufficiently treated by the Sanitation Districts of Los Angeles County's wastewater conveyance systems; however infrastructure improvements are required

5.14.1.8 MITIGATION MEASURES

Impact 5.14-1

USS-1 Prior to the issuance of grading permits for the proposed Project, the project applicant shall prepare and submit Sewer Plans showing the needed upsizing improvements of sewer mains for review and approval by the Los Angeles County Department of Public Works and the Los Angeles County Sanitation Districts. An increased capacity sewer trunk line of 12 inches is required to adequately accommodate new uses of the proposed project. The 12-inch line will replace 163 linear feet of 8-inch pipe in 242nd Street from the alley to Hawthorne Boulevard and 259 linear feet of 8-inch pipe Hawthorne Boulevard from 242nd Street to Pacific Coast Highway. When connecting an 8-inch or larger connection to a Districts' trunk sewer, submittal of Sewer Plans to the District for approval and review is required. The project applicant shall also provide a conditional "will serve" letter from the District, evidencing that upon compliance with all rules and regulations, there will be available trunk sewer and treatment plant capacities for the proposed Project. The project applicant shall then provide a final "will serve" letter from the District to the City of Torrance, confirming that all conditions set forth in the conditional "will serve" letter have been satisfied.

5.14.1.9 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The mitigation measure identified above would reduce potential impacts associated with utilities and service systems to a level that is less than significant. Therefore, no significant unavoidable adverse impacts relating to wastewater remain.

5.14.2 Water Supply and Distribution Systems

Information on existing and proposed water lines in and/or near the site is from the Hydraulic Network Analysis for Fire & Domestic Water Service, Solana Terrace, by KHR Associates dated October 1, 2018. A complete copy of this report is included as Appendix L1 to this DEIR.

5.14.2.1 ENVIRONMENTAL SETTING

Regulatory Background

Federal

Clean Water Act

The federal Clean Water Act establishes regulatory requirements for potable water supplies, including criteria for raw and treated water quality. The California Water Service Company, Dominguez District the water purveyor for the project site – is required to monitor water quality and conform to the CWA.

Safe Drinking Water Act

The federal Safe Drinking Water Act sets standards for drinking water quality and is enforced by the EPA, who oversees the states, localities, and water suppliers that implement those standards. The Safe Drinking Water Act protects drinking water and its sources, which include rivers, lakes, and groundwater.

State

Urban Water Management Planning Act

The Urban Water Management Planning Act of 1983 requires water management planning for large suppliers of water. The threshold for water management plans is 3,000 acre-feet annually (2.6 mgd) OR supplying more than 3,000 customers. Under this rule, water providers are required to:

- Prepare a plan that assesses source water sustainability and reliability over expected water demand growth in 5-year increments for a minimum of 20 years future planning.
- Prepare a plan for water supply in future years under the following conditions: normal, one year drought, and multiple year drought. Water sources must be able to supply the water demand in all conditions.
- Provide a plan to implement conservation measures by customers.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act—collectively, Assembly Bill 1739, Senate Bill 1168, and Senate Bill 1319—passed in 2014 and defines sustainable groundwater measures. The legislation provides guidance for groundwater management and identifies the undesirable results of groundwater withdrawal. The plan is intended to ensure sustainability measures are used in all groundwater activities such as pumping and intentional recharge.

Water Conservation Plan

The 20x2020 Water Conservation Plan of 2010 was a byproduct of the Water Conservation Act of 2009. The plan had a threefold effect: 1) established a benchmark of current usage per capita off 2005 baseline data; 2) established an intermediate goal for all water providers to meet by 2015; and 3) established a 20 percent reduction in water usage by 2020.

Senate Bill 407

California Senate Bill 407 of 2009 was enacted to decrease wasteful water usage by homeowners. It requires all noncompliant plumbing fixtures installed before 1994 to be updated with plumbing fixtures that meet current usage standards. Standards for water-conserving plumbing fixtures are set forth in California Green Building Standards Code (CALGreen; Title 24, California Code of Regulations, Part 11) Section 301.1.1. CALGreen is updated triennially; the 2016 CALGreen took effect on January 1, 2017.

Executive Order No. B-40-17

After a five-year extraordinary drought in California from 2011 to 2016, Governor Edmund Brown Jr. issued Executive Order B-40-17 on April 7, 2017, making certain water conservation measures permanent. The measures are largely prohibitions on certain outdoor uses of potable water, including landscape irrigation causing water to flow onto pavement or structures; and use of a hose to wash a motor vehicle unless the hose is fitted with a shut-off nozzle (Brown 2017).

City of Torrance

The City of Torrance Water Conservation and Water Supply Shortage and Sustainability Program (WCP) is set forth in Sections 76.4.010 et seq. of the City's Municipal Code. Regulations regarding landscape irrigation are set forth in the WCP.

Existing Conditions

Water Supplies

Torrance Municipal Water (TMW), a municipal utility, provides water to most of the City including the project site. TMW serves approximately 105,400 residents—that is, about 71 percent of the City's population; its service area is about 16 square miles, or 78 percent of the City of Torrance (Torrance 2016). TMW obtains water from four sources:

- **Imported Water** from northern California via the State Water Project; and from the Colorado River via the Colorado River Aqueduct, both purchased from the Metropolitan Water District of Southern California (MWDSC). TMW is an MWDSC member agency.

- **Groundwater** from the West Coast Subbasin of the Coastal Plain of Los Angeles Groundwater Basin that underlies much of the southwest Los Angeles Basin (see Figure 5.8-3, *West Coast Subbasin*). Water is produced by one well.

- **Brackish groundwater** from the West Coast Subbasin treated by the Goldsworthy Desalter in the City of Torrance. The Goldsworthy Desalter has 5 million gallons per day (mgd) capacity.

- **Recycled water** from the West Basin Municipal Water District (WBMWD)'s Edward Little Water Recycling Facility (ELWRF) in the City of El Segundo. The ELWRF has 40 mgd capacity. Most of the recycled water use in the City of Torrance is by the Torrance Refinery Company; the balance is for landscape irrigation (Torrance 2016).

TMW forecasts that its water supplies will remain constant at about 36,794 acre-feet per year over the 2020-2040 period. Forecast supplies consist of about 52 percent imported water; 15 percent groundwater; 19 percent desalinated groundwater; and 13 percent recycled water.

Water Demands and Water Supply Reliability

TMW water demands were 28,609 af in 2015; and are forecast to increase gradually from 25,443 afy in 2020 to 27,454 afy in 2040. Surplus water supplies in normal year conditions are expected to decline slightly from 11,351 afy in 2020 to 9,340 afy in 2040. TMW forecasts that it will have sufficient water supplies to meet demands in its service area over the 2020-2040 period in normal, single-dry-year, and multiple-dry-year conditions. Water demands over the 2020-2040 period are estimated using an annual population growth estimate of 0.55 percent, which is the annual population growth rate of TMW's service area over the 2000-2015 period (Torrance 2016).

Phased Water Conservation Plan

The City of Torrance WCP is set forth in Sections 76.4.010 et seq. of the City's Municipal Code. The WCP identifies three stages of action:

Level 1: < 15% water supply reduction target

Level 2: 15%-30% water supply reduction target; and

Level 3: > 30% water supply reduction target.

The WCP identifies mandatory water use prohibitions for each stage. Most of the specific prohibitions, especially for Level 1 and Level 2, are on outdoor water uses (Torrance 2016)

Water Treatment

Imported MWD water used in Los Angeles County is treated at three MWDSC treatment plants: the Jensen Treatment Plant in the San Fernando Valley, with 750 mgd capacity; the Weymouth Treatment Plant in the City of La Verne in the San Gabriel Valley, with 520 mgd capacity; and the Diemer Treatment Plant in the City of Yorba Linda in Orange County, with 520 mgd capacity (MWDSC 2018).

The Goldsworthy Desalter in the City of Torrance is described above under *Water Supplies*.

TMW uses chloramines for disinfection of groundwater from its one active well.

Water Conveyance Near the Project Site

Existing water mains next to the project site include a 10-inch main in Hawthorne Boulevard and a 12-inch main in Via Valmonte (KHR 2018).

5.14.2.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project:[2]

U-1 Would require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

U-2 Would not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.

5.14.2.3 ENVIRONMENTAL IMPACTS

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.14-2: Water supply and delivery systems are adequate to meet project requirements. [Thresholds U-1 (partial) and U-2]

Impact Analysis:

Proposed Project Water Demands and Water Supplies

Proposed project water demand was estimated at 88,084 gallons per day (gpd) in the Hydraulic Network Analysis (KHR 2018). TMW estimates that its surplus water supplies will range from 11,351 afy, or about 10.13 mgd, in 2020, to approximately 9,340 afy, or about 8.3 mgd, in 2040. TMW forecasts that it will have sufficient

[2] The significance thresholds set forth here are from the CEQA Guidelines Update approved by the California Office of Administrative Law in December 2018.

water supplies to meet proposed project water demands, and project development would not require TMW to obtain new or expanded water supplies.

Water Treatment

The three MWDSC water treatment facilities serving Los Angeles and Orange counties have total capacity of about 1.8 billion gallons per day. The Goldsworthy Desalter has 5 mgd capacity. There is sufficient water treatment capacity in the region for estimated proposed project water demands, and project development would not require construction of new or expanded water treatment facilities.

Water Delivery

The Hydraulic Network Analysis (Appendix L1 to this DEIR) included fire flow tests and estimates of water flow rates needed for fire flow and domestic water service. The existing water mains in Via Valmonte and Hawthorne Boulevard have adequate flow rates for fire flow and domestic water service to the proposed project. Project development would not require construction of new or expanded off-site water mains.

5.14.2.4 CUMULATIVE IMPACTS

The area considered for analysis of cumulative impacts to water supplies, water treatment, and water delivery is TMW's service area. The discussion of forecast TMW water supplies and demands above in Section 5.14.2.1 addresses TMW's entire service area and is thus cumulative. TMW forecasts that it will have sufficient water supplies to meet demands in its service area over the 2020-2040 period in normal and dry-year conditions. According to the Urban Water Management Plan, the projected potable demands under the consumption rate of 172 GPCD can be met through 2035 by TMW's anticipated local supply capacity based on a Tier 1 limit of 20,967 from Municipal Water District and production capacities of up to 5,640 acre feet per year and 2,400 acre feet per year from its wells and Goldsworthy Desalter, respectively (Torrance 2016). Recycled water may be utilized to offset non-potable water demands. Some other projects may require expansion of some TMW water mains. Other projects would require independent CEQA review including analysis of impacts of installing off-site infrastructure. Where significant impacts of such installation were identified, implementation of all feasible mitigation measures would be required to reduce those impacts. Cumulative impacts would be less than significant, and project impacts would not be cumulatively considerable.

5.14.2.5 EXISTING REGULATIONS AND STANDARD CONDITIONS

Federal

- United States Code, Title 33, Sections 1251 et seq.: Clean Water Act
- United States Code Title 42, Sections 300f et seq.: Safe Drinking Water Act

State

- Senate Bill X7-7 (2009): Water Conservation Act of 2009
- 20x2020 Water Conservation Plan
- Senate Bill 407: California Civil Code Sections 1101.1 et seq.

- Executive Order No. B-40-17

City of Torrance

- Municipal Code Sections 76.4.010 et seq.: Water Conservation and Water Supply Shortage and Sustainability Program

5.14.2.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions of approval, impact 5.14-2 would be less than significant.

5.14.2.7 MITIGATION MEASURES

No mitigation measures are required.

5.14.2.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts would be less than significant.

5.14.3 Solid Waste

5.14.3.1 ENVIRONMENTAL SETTING

Regulatory Background

Federal

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act of 1976 (Title 40 of the Code of Federal Regulations), Part 258, contains regulations for municipal solid waste landfills and requires states to implement their own permitting programs incorporating the federal landfill criteria. The federal regulations address the location, operation, design (liners, leachate collection, run-off control, etc.), groundwater monitoring, and closure of landfills.

State

California Integrated Waste Management Act of 1989

Assembly Bill 939 (Integrated 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 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. The law also mandates recycling for commercial and multifamily residential land uses as well as schools and school districts.

California Solid Waste Reuse and Recycling Act of 1991

The California Solid Waste Reuse and Recycling Access Act (AB 1327, California Public Resources Code Sections 42900 et seq.) requires areas to be set aside for collecting and loading recyclable materials in development projects. The act required the California Integrated Waste Management Board to develop a model ordinance for adoption by any local agency requiring adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model or an ordinance of their own.

Assembly Bill 341

Assembly Bill 341 (AB 341; Chapter 476, Statutes of 2011) increases the statewide waste diversion goal to 75 percent by 2020, and mandates recycling for commercial and multi-family residential land uses.

Assembly Bill 1826

Assembly Bill 1826 (AB 1826; California Public Resources Code Sections 42649.8 et seq.) requires recycling of organic matter by businesses, and multifamily residences of five of more units, generating such wastes in amounts over certain thresholds. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste. Multifamily residences are not required to have a food waste diversion program.

Senate Bill 1383

Senate Bill 1383 (SB 1383; California Health and Safety Code Sections 39730.5 et seq.) set targets to achieve a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025. The law is intended to reduce emissions of methane, a short-lived climate pollutant, from decomposition of organic waste in landfills, for the protection of people in at-risk communities as well as to reduce GHG emissions.

California Green Building Standards Code

Section 5.408 (Construction Waste Reduction, Disposal, and Recycling) of the 2016 California Green Building Standards Code (CALGreen; Title 24, California Code of Regulations, Part 11) requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

City of Torrance

CALGreen is adopted by reference as Sections 813.1.1 et seq. of the City of Torrance Municipal Code.

Existing Conditions

Solid Waste Collection

Private haulers licensed to do business in the City of Torrance collect solid waste from commercial uses and multifamily residences in Torrance. The City of Torrance Sanitation Division collects solid waste from single-family residences in Torrance.

Solid Waste Disposal

In 2017 about 96 percent of the solid waste disposed of from Torrance was sent to five facilities: three landfills and two waste-to-energy facilities (the Southeast Resource Recovery Facility, a recycling and waste-to-energy facility, and the Commerce Refuse-to-Energy Facility). The three landfills are described below in Table 5.14-4, *Landfill Capacity*.

Table 5.14-4 Landfill Capacity

Landfill and Nearest City	Current Remaining Capacity (Cubic Yards)	Maximum Daily Disposal Capacity (tons)	Average Daily Disposal, 2017 (tons)1	Residual Daily Disposal Capacity, tons	Estimated Close Date
Azusa Land Reclamation Azusa	51,512,201	8,000	1,410	6,590	2045
Chiquita Canyon Landfill Castaic	8,617,126	6,000	4,972	1,028	2019
Sunshine Canyon City/County Landfill Sylmar	77,900,000	12,100	6,728	5,372	2037
Total	**138,029,327**	**26,100**	**13,110**	**12,990**	

1 Average daily disposal is based on 300 operating days per year; each landfill is open six days per week except certain holidays.
Sources: LACDPW 2019; CalRecycle 2019a; CalRecycle 2019b; CalRecycle 2019c; CalRecycle 2019d

Solid Waste Diversion

The Southeast Resource Recovery Facility (SERFF) is a recycling and waste-to-energy facility on Terminal Island in the City of Long Beach. The SERFF retrieves recyclable materials from the waste stream and also incinerates solid waste to generate electricity; its maximum permitted throughput is 2,240 tons per day (LACSD 2019; CalRecycle 2019e).

The City of Torrance is a member jurisdiction of the Los Angeles Regional Agency (LARA), a Joint Powers Agency consisting of 18 member cities. Recycling and diversion data are available for LARA but not for the City of Torrance. There are 57 solid waste diversion programs in the LARA member cities including composting; transfer stations and material recovery facilities; household hazardous waste programs; public education programs; recycling; source reduction programs; special waste materials programs such as for tires and scrap metal; and waste-to-energy (CalRecycle 2019f). Compliance with AB 939 is measured in part through comparing target disposal rates with actual disposal rates; actual rates at or below target rates are consistent with AB 939. In 2016, the latest year for which data are available, the target disposal rates for LARA were 6.9

pounds per day (ppd) per resident and 17.5 ppd per employee; actual rates were 5.3 ppd per resident and 13.2 ppd per employee (CalRecycle 2019f), consistent with AB 939.

5.14.3.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project:[3]

U-4 Would generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.

U-5 Would not comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

5.14.3.3 ENVIRONMENTAL IMPACTS

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.14-3: Existing and/or proposed facilities would be able to accommodate project-generated solid waste and comply with related solid waste regulations. [Thresholds U-4 and U-5]

Impact Analysis:

Estimated Project Solid Waste Generation

According to Los Angeles CEQA Threshold Guide, residential apartments are estimated to generate about 12.23 pounds per day (ppd) of solid waste (City of Los Angeles 2006). Thus, the proposed 248 units are estimated to generate about 3,033 ppd, or 1.38 tons, of solid waste daily (Torrance 2009). The two landfills and reclamation facility described above in Table 5.14-4 have total residual capacity of nearly 13,000 tons per day. There is sufficient solid waste disposal capacity in the region for estimated project-generated solid waste.

Solid Waste Diversion and Regulatory Compliance

Assembly Bills 939, 341, 1327 and 1826

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 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.

[3] The significance thresholds set forth here are from the CEQA Guidelines Update approved by the California Office of Administrative Law in December 2018.

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

Assembly Bill 1327 (California Solid Waste Reuse and Recycling Act; Public Resources Code 42900-42911) required the Board to approve a model ordinance for adoption by any local government for the transfer, receipt, storage, and loading of recyclable materials in development projects.

Assembly Bill 1826 (California Public Resources Code Sections 42649.8 et seq.), signed into law in September 2014, requires recycling of organic matter by businesses generating such wastes in amounts over certain thresholds. This law also requires that local jurisdictions implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily dwellings that consist of five or more units. Multifamily dwellings are not required to recycle food waste including food-soiled paper (CalRecycle 2018). The law took effect in April 2016.

Senate Bill 1383

Senate Bill 1383 (Lara, Chapter 395, Statutes of 2016) establishing methane emissions reduction targets in a statewide effort to reduce emissions of short-lived climate pollutants in various sectors of California's economy. The new law codifies the California Air Resources Board's Short-Lived Climate Pollutant Strategy, established pursuant to SB 605 (Lara, Chapter 523, Statutes of 2014), to achieve reductions in the statewide emissions of short-lived climate pollutants.

The proposed project would include storage areas for storing recyclable materials, in accordance with AB 1327 and AB 939. Project operation would include recycling, in compliance with AB 341and SB 1383, and recycling of organic matter (excepting food waste) in accordance with AB 1826. At least 65 percent of demolition debris would be recycled and/or salvaged in accordance with CALGreen Section 5.408. Impacts would be less than significant.

5.14.3.4 CUMULATIVE IMPACTS

The area considered for cumulative impacts analysis is the City of Torrance, the service area for the City's Sanitation Division. Other projects in the City would increase solid waste generation. The population of the City is forecast to increase by about 13,300, or 9 percent, between 2012 and 2040; while employment in the City is forecast to increase by about 15,300, or 13 percent, in the same period (SCAG 2016). Other projects would comply with regulatory requirements for recyclable materials collection areas such as recycling, including recycling organic matter, and recycling and/or salvaging construction and demolition waste. Cumulative impacts would be less than significant and project impacts would not be cumulatively considerable.

5.14.3.5 EXISTING REGULATIONS AND STANDARD CONDITIONS

Federal

- United States Code Title 42, Sections 6901 et seq.: Resource Conservation and Recovery Act

State

- California Public Resources Code 40050 et seq.: Integrated Solid Waste Management Act of 1989
- Assembly Bill 341 (Chapter 476, Statutes of 2011)
- California Public Resources Code Sections 42649.8 et seq. (Assembly Bill 1826)
- California Health and Safety Code Sections 39730.5 et seq. (Senate Bill 1383)
- Title 24, California Code of Regulations, Part 11 (California Green Building Standards Code), Section 5.408

5.14.3.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions of approval, Impact 5.14-3 would be less than significant.

5.14.3.7 MITIGATION MEASURES

No mitigation measures are required.

5.14.3.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts would be less than significant.

5.14.4 Energy

In accordance with Appendix F of the State CEQA Guidelines, this DEIR includes relevant information and analyses that address the energy implications of the proposed project. This section represents a summary of the proposed project's anticipated energy needs, impacts, and conservation measures. Information found herein, as well as other aspects of the project's energy implications, are discussed in greater detail elsewhere in this DEIR, including Chapter 4, Project Description, and Sections 5.2, Air Quality, 5.6, Greenhouse Gas Emissions, and 5.12, Transportation and Traffic. This section also relies on the results of a CalEEMod estimation of fuel and energy use for construction and operation found in Appendix B1 of this EIR.

5.14.4.1 ENVIRONMENTAL SETTING

Regulatory Background

Federal

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (Public Law 110-140) seeks to provide the nation with greater energy independence and security by increasing the production of clean renewable fuels; improving vehicle fuel economy; and increasing the efficiency of products, buildings, and vehicles. It also seeks to improve the energy performance of the federal government. The Act sets increased Corporate Average Fuel Economy Standards, the Renewable Fuel Standard, appliance energy efficiency standards, building energy efficiency standards, and accelerated research and development tasks on renewable energy sources (e.g., solar energy,

geothermal energy, and marine and hydrokinetic renewable energy technologies), carbon capture, and sequestration.

State

Renewables Portfolio Standard

The California Renewables Portfolio Standard was established in 2002 under Senate Bill (SB) 1078 and was amended in 2006, 2011, and was most recently amended as SB 100 on September 10, 2018. The program requires investor-owned utilities, electricity service providers, and community choice aggregators to increase the use of eligible renewable energy resources to 33 percent of total procurement by 2020. SB 100 revised the goal of the program to achieve 50 percent renewable resources by December 31, 2016, and to achieve a 60 percent target by December 31, 2030.

State Alternative Fuels Plan

Assembly Bill (AB) 1007 requires the California Energy Commission (CEC) to prepare a plan to increase the use of alternative fuels in California. The State Alternative Fuels Plan was prepared by the CEC with California Air Resources Board (CARB) and in consultation with other federal, State, and local agencies to reduce petroleum consumption; increase use of alternative fuels (e.g., ethanol, natural gas, liquefied petroleum gas, electricity, and hydrogen); reduce greenhouse gas (GHG) emissions; and increase in-state production of biofuels. The State Alternative Fuels Plan recommends a strategy that combines private capital investment, financial incentives, and advanced technology that will increase the use of alternative fuels; result in significant improvements in the energy efficiency of vehicles; and reduce trips and vehicle miles traveled through changes in travel habits and land management policies. The Alternative Fuels and Vehicle Technologies Funding Program legislation (AB 118, Statutes of 2007) proactively implements this plan (CEC 2007).

Appliance Efficiency Regulations

The 2006 Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608) were adopted by the California Energy Commission on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally and non–federally regulated appliances. California's Appliance Efficiency Regulations (California Code of Regulations [CCR], Title 20, Parts 1600–1608) contain energy performance, energy design, water performance, and water design standards for appliances (including refrigerators, ice makers, vending machines, freezers, water heaters, fans, boilers, washing machines, dryers, air conditioners, pool equipment, and plumbing fittings) that are sold or offered for sale in California. These standards are updated regularly to allow consideration of new energy efficiency technologies and methods.

Building Energy Efficiency Standards (CCR Title 24, Part 6)

The Energy Efficiency Standards for Residential and Nonresidential Buildings (24 California Code of Regulations [CCR]] Part 6) were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The California Energy Commission (CEC) adopted the 2008 changes to the Building Energy Efficiency Standards in order to (1) "Provide California with an adequate, reasonably-priced, and environmentally-sound supply of energy" and (2) "Respond to Assembly Bill 32, the Global Warming Solutions

Act of 2006, which mandates that California must reduce its greenhouse gas emissions to 1990 levels by 2020". Title 24 Part 6 of the 2013 California Building Standards Code, the 2013 California Energy Code, went into effect on July 1, 2014, and includes energy efficiency updates (CBSC 2015).

Most recently, the CEC adopted the 2016 Building and Energy Efficiency Standards. The 2016 Standards will continue to improve upon the current 2013 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. These standards went into effect on January 1, 2017. Under the 2016 Standards, residential buildings are 28 percent more energy efficient than the 2013 Standards, and nonresidential buildings are 5 percent more energy efficient than the 2013 Standards (CEC 2015a). Buildings that are constructed in accordance with the 2013 Building Energy Efficiency Standards are 25 percent (residential) to 30 percent (nonresidential) more energy efficient than the prior 2008 standards as a result of better windows, insulation, lighting, ventilation systems, and other features. While the 2016 standards do not achieve zero net energy, they do get very close to the state's goal and make important steps toward changing residential building practices in California. The 2019 standards will take the final step to achieve zero net energy for newly constructed residential buildings throughout California (CEC 2015b).

Title 24, Part 11, Green Building Standards

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11, Title 24, known as CALGreen; adopted by reference in Chapter 18.47 [Green Building Standards Code] of the City's Municipal Code) was adopted as part of the California Building Standards Code (Title 24, California Code of Regulations). CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. The mandatory provisions of CALGreen became effective January 1, 2011. The 2016 CALGreen took effect on January 1, 2017. The CALGreen Code is intended to (1) reduce greenhouse gas emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the Governor. In short, the code is established to reduce construction waste, make buildings more efficient in the use of materials and energy, and reduce environmental impact during and after construction. The CALGreen Code contains requirements for construction site selection, storm water control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, site irrigation conservation and more. The code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for verifying that all building systems (e.g., heating and cooling equipment and lighting systems) are functioning at their maximum efficiency (ICC 2017).

Assembly Bill 1493: Vehicle GHG Emissions

California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and is anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implements the Pavley I standards through a waiver granted to California by the EPA. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG

emissions standards for model year 2017 through 2025 light-duty vehicles (see also the discussion on the update to the Corporate Average Fuel Economy standards under *Federal Laws*, above). In January 2012, CARB approved the Pavley Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards. Under California's Advanced Clean Car program, by 2025, new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.

Local

City of Torrance Energy Efficiency Climate Action Plan

The City adopted its Climate Action Plan (CAP) in 2017 (Torrance 2015), with the Energy Efficiency chapter being adopted in 2015 with respective GHG inventory and targets for reduction. (Torrance 2015) The CAP serves as the City's community-wide GHG reduction strategy to achieve the state's GHG reduction targets for year 2020 and 2035 to mitigate and streamline future project-level GHG impacts. The CAP sets a target of 1990 levels, or 15 percent reduction below baseline (2005), for 2020 and a target of 49 percent below baseline for year 2035. The interim year 2035 reduction target is used as an indicator to determine the City's progress in meeting the long-term 2050 reduction target of 80 percent below 1990 levels. To achieve these reduction targets, the CAP identifies community and municipal goals and associated strategies outlined in the plan.

Community Energy Efficiency Goals:

- Goal 1: Increase Energy Efficiency (EE) in Existing Residential Units
- Goal 2: Increase Energy Efficiency in New Residential Development
- Goal 3: Increase Energy Efficiency in Existing Commercial Units
- Goal 4: Increase Energy Efficiency in New Commercial Development
- Goal 5: Increase Energy Efficiency through Water Efficiency
- Goal 6: Decrease Energy Demand through Reducing Urban Heat Island Effect

Municipal Energy Efficiency Goals

- Goal 1: Participate in Education, Outreach, and Planning Efforts for Energy Efficiency
- Goal 2: Increase Energy Efficiency in Municipal Buildings
- Goal 3: Increase Energy Efficiency in City Infrastructure
- Goal 4: Reduce Energy Consumption in the Long Term

Existing Conditions

Electricity

Electricity is quantified using kilowatts (kW) and kilowatt-hours (kWh). A kW is a measure of 1,000 watts of electrical power and a kWh is a measure of electrical energy equivalent to a power consumption of 1,000 watts for 1 hour. The kWh is commonly used as a billing unit for energy delivered to consumers by electric utilities. Southern California Edison (SCE) provides electricity in the City of Torrance. SCE's service area spans much

of southern California from Orange and Riverside counties on the south to Santa Barbara County on the west to Mono County on the north (CEC 2015). Total electricity consumption in SCE's service area was 106,080 gigawatt-hours (GWh) in 2015 and is forecasted to increase to 120,780 GWh in 2028 for the mid-demand scenario (CEC 2017); one GWh is equivalent to one million kilowatt-hours. Sources of electricity sold by SCE in 2017 were:

- 32 percent renewable (solar, wind, and geothermal)
- 8 percent large hydroelectric
- 20 percent natural gas
- 6 percent nuclear
- 34 percent unspecified sources – that is, not traceable to specific sources (SCE 2018).

SCE offers Green Rates for those residential and business customers with "bundled" service from SCE—consisting of generation, metering, and other services—under which part or all of the customer's bill amount is used to fund solar energy sources (SCE 2019). The project site does not currently have any electricity energy demands.

Natural Gas

Gas is typically quantified using "therms", which is a unit of heat energy equal to 100,000 British thermal units (Btu) and is the energy equivalent of burning 100 cubic feet of natural gas. The Southern California Gas Company (SCGC) provides natural gas to the project site. SCGC's service area spans much of the southern half of California, from Imperial County on the southeast to San Luis Obispo County on the northwest to part of Fresno County on the north to Riverside County and most of San Bernardino County on the east (CEC 2015). Total natural gas supplies available to SCGC are forecast to remain constant at 3,775 million cubic feet per day (MMCF/Day) from 2015 through 2035. Total natural gas consumption in SoCalGas's service area is forecast to be 2.625 bcfd in 2018 and 2.313 bcfd in 2035 (CGEU 2018). The project site currently does not have any natural gas energy demands.

5.14.4.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the State CEQA Guidelines Update approved in December 2018, the proposed project would have a significant impact related to energy consumption if it would:

U-8 Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

U-9 Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

5.14.4.3 ENVIRONMENTAL IMPACTS

The impact analysis focuses on the three sources of energy that are relevant to the proposed project: electricity, natural gas, and transportation fuel for vehicle trips associated with the new development and its construction. The analysis of electricity/natural gas usage is based on California Emissions Estimator Model (CalEEMod) GHG emissions modeling, which quantifies energy use for occupancy (see Appendix B1).

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.14-4: Project construction and operation would not cause wasteful, inefficient, or unnecessary energy consumption. Project development would not conflict with a state or local plan for renewable energy or energy efficiency. [Thresholds U-8, U-9]

Impact Analysis:

Short-term Construction Impacts

Construction of the proposed project would require the use of construction equipment for grading, hauling, and building activities. Equipment proposed for these types of activities is listed in Table 5.2-6, *Construction Equipment*, in Section 5.2, Air Quality. Electricity use during construction would vary during different phases of construction—the majority of construction equipment during grading would be gas powered or diesel powered, and the later construction phases would require electricity-powered equipment, such as interior construction and architectural coatings. Construction also includes the vehicles of construction workers traveling to and from the project site and haul trucks for the export of materials from site clearing, demolition and the export and import of soil for grading. Transportation energy use depends on the type and number of trips, vehicle miles traveled, fuel efficiency of vehicles, and travel mode. The use of energy resources by these vehicles would fluctuate according to the phase of construction and would be temporary. Impacts related to transportation energy use during construction would be temporary and would not require expanded energy supplies or the construction of new infrastructure.

The construction contractors are also expected to minimize idling of construction equipment during construction as required by state law (see Section 5.2, Air Quality), and reduce construction and demolition waste by recycling. These required practices would limit wasteful and unnecessary electrical energy consumption. Furthermore, there are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in other parts of the state. Project construction would involve recycling or salvaging at least 65 percent of construction waste per CALGreen Section 4.408. Therefore, the proposed short-term construction activities would not result in inefficient, wasteful, or unnecessary fuel consumption.

Operation Impacts Electricity

Project operation would use approximately 1,854,031 kWh or 1.85 Giga-watt hour (GWh), as shown in Table 5.14-5, *Estimated Project Electricity Demands*, below. Project demands were calculated assuming energy efficient appliances and lighting would be utilized.[4] Implementation of additional energy efficiency project components could potentially be lower than the calculations presented. The project design would comply with State Building Energy Efficiency Standards, the California Green Building Standards Code and Title 24 Energy Requirements. Southern California Edison (SCE) provides services to the project site. The project applicant shall follow the

[4] All items that are assumed in this DEIR, if not required as mitigation measures, will be included as conditions of approval.

City's standard requirements of submitting a will serve letter request to SCE in order to verify the service area supply has the capacity to meet project demands.

Table 5.14-5 Estimated Project Electricity Demands

	Total Electricity Demands, kWh/yr
Proposed Project[2]	
Apartment Mid Rise Living Units[1]	885,996
Enclosed Parking with Elevator	900,291
Health Club[2]	54,223.6
Parking Lot	13,520.4
Total	**1,854,031**

[1] U.S Energy Information Administration. Commercial Buildings Energy Consumption Survey (CBESCS).
[2] CalEEMod v.2013.2. Appendix B1 calculation Details for CalEEMod

Natural Gas

Project operation is estimated to use about 4.14 thousand cubic feet (Mcf) per year as presented below in Table 5.14-6, *Estimated Project Natural Gas Demands*. The Southern California Gas Company (SCGC) provides natural gas service to the project site. A will serve letter from SCGC will act to ensure that project demands meet available supply in the project area.

Renewable Energy

Project development would not interfere with achievement of the 60 percent Renewable Portfolio Standard set forth in SB 100 for 2030 or the 100 percent standard for 2045. These goals apply to electricity retailers, and as electricity retailers reach these goals, emissions from end user electricity use will decrease from current emission estimates.

Table 5.14-6 Estimated Project Natural Gas Demands

Land Use	Total Natural Gas Demands, cubic feet/yr
Proposed Project[2]	
Apartment Mid Rise Living Units[1]	3,975.9
Health Club[2]	162
Total	**4,137.9**

[1] U.S Energy Information Administration. Commercial Buildings Energy Consumption Survey (CBESCS).
[2] Operation of the parking areas would not use natural gas.

Transportation

Vehicle Miles Traveled and Fuel Consumption

Notably, the project would comply with the 2016 CALGreen Tier 1 standards for residential development, which requires that 5 percent of the total number of parking spaces provided for all types of parking facilities be electric vehicle charging spaces capable of supporting future electric vehicle supply equipment. As such, GHG emission reductions were quantified for the inclusion of 25 (i.e., 5 percent of 484 parking spaces) electric vehicle charging spaces for the project.

Transportation energy use depends on the type and number of trips, vehicle miles traveled (VMT), fuel efficiency of vehicles, and travel mode. Transportation energy used during operation of the site would come from delivery, employee, and visitor vehicles that would use diesel fuel and/or gasoline. The use of energy resources by these vehicles would be temporary and would fluctuate throughout the lifespan of the project. According to the Traffic Impact Study prepared for the proposed project (see Appendix J), the project would generate 1,349 average daily trips, with 89 AM peak hour and 109 PM peak hour trips.

CARB publishes the EMFAC2019 Web Database, which was used to calculate fuel consumption for the project-generated VMT. Table 5.15-7, *Operation-Related Vehicle Fuel and Energy Usage*, shows the calculated VMT and fuel consumption based on the project-generated trips.

Table 5.14-7 Operation-Related Vehicle Fuel and Energy Usage

Year	Gas		Diesel		CNG		Electricity	
	VMT	Gallons	VMT	Gallons	VMT	Gallons	VMT	kWh
Proposed Project	4,484,669	185,462	315,131	34,774	12,584	3,598	46,073	15,386
Total	4,484,669	185,462	315,131	34,774	12,584	3,598	46,073	15,386

Notes: The full calculations are in Appendix B1 of the DEIR.

The gas consumption estimates in Table 5.14-7 would be a conservative figure, because as fuel efficiency in passenger cars increases, electric vehicle use expands, and fuel usage will decrease. The calculated fuel use represents less than 0.001 percent of the total fuel usage for light vehicles in the region over the same year in 2019 (1.39 billion gallons) (see Appendix B). This increase in fuel usage represents a conservative estimate, with the real use likely being less than calculated. The 0.001 percent increase in VMT associated with this project is considered negligible when compared to the region as a whole.

Summary

Based on the analysis above, Impact 5.14-6 would be less than significant.

5.14.4.4 CUMULATIVE IMPACTS

The area considered for cumulative impacts is that within both SCE's and SCGC's service areas—extending from Santa Barbara, Tulare, and San Bernardino counties on the north to Orange and Riverside counties on the south. Growth in the City of Torrance would result in additional demand for electricity service. Based on energy rates from the United States Energy Information Administration for land uses in the City, existing energy demand is approximately 3.1 million gigawatt hours (Gwh) per year. Future growth in accordance with the City's General Plan Land Use Element would generate a demand of approximately 8.0 million Gwh per year (Torrance 2009). Buildout in accordance with the Torrance General Plan Update would also result in additional need for natural gas service in the City by SCGC. Demand for electricity and natural gas services would be accommodated by the service providers. New facilities to support the demand for natural gas and electric service in the City of Torrance would be constructed by SCE and SCGC in accordance with the demand for new service. The City of Torrance will require that installation of utilities will be undergrounded.

Operation and construction of other projects would increase energy use. Other potential projects would be required to comply with Building Energy Efficiency Standards and the California Green Building Standards Code. Presumably, due to compliance with these regulations, other projects would not involve wasteful, inefficient, or unnecessary energy use, and cumulative impacts would be less than significant. Project impacts would not be cumulatively considerable.

5.14.4.5 EXISTING REGULATIONS AND STANDARD CONDITIONS

State

- Title 24, California Code of Regulations, Part 6: Energy Efficiency Standards for Buildings
- Title 24, California Code of Regulations, Part 11: California Green Building Standards Code

5.14.4.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Impact 5.14-4 Project construction and operation would not cause wasteful, inefficient, or unnecessary energy consumption, and project development would not conflict with a state or local plan for renewable energy or energy efficiency.

5.14.4.7 MITIGATION MEASURES

No mitigation measures are required.

5.14.4.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts would be less than significant.

5.14.5 References

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5. Environmental Analysis
UTILITIES AND SERVICE SYSTEMS

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