3.15 UTILITIES AND SERVICE SYSTEMS

This section of the Environmental Impact Report (EIR) describes the existing utility infrastructure and capacity in the vicinity of the Beach Cities Health District (BCHD) campus within the City of Redondo Beach and the City of Torrance. Further, this section of the EIR describes the planned utility infrastructure improvements and evaluates the operation and capacity of these utilities with the development of the proposed BCHD Health Living Campus Master Plan (Project). The utilities analysis is divided into three subsections: 1) water infrastructure and supply; 2) wastewater collection, conveyance, and treatment; and 3) solid waste management. Energy services – including electricity and natural gas – are addressed in Section 3.5, *Energy*.

The Project site is currently served by the following utilities:

Table 3.15-1. Utilities Serving the Existing BCHD Campus

Utility	Service Provider
Water	West Basin Municipal Water District, California Water Service Company
Wastewater	Los Angeles County Sanitation Districts, City of Redondo Beach Public Works Department
Solid Waste	Athens Services

3.15.1 Water Infrastructure and Supply

This subsection describes the current status of potable water (i.e., drinking water) in the City, including a discussion of local water conservation initiatives and the ability of the local water infrastructure and supply to meet existing demand at the BCHD campus and projected water demands with the implementation of the proposed Project.

3.15.1.1 Environmental Setting – Water Infrastructure and Supply

Water Infrastructure

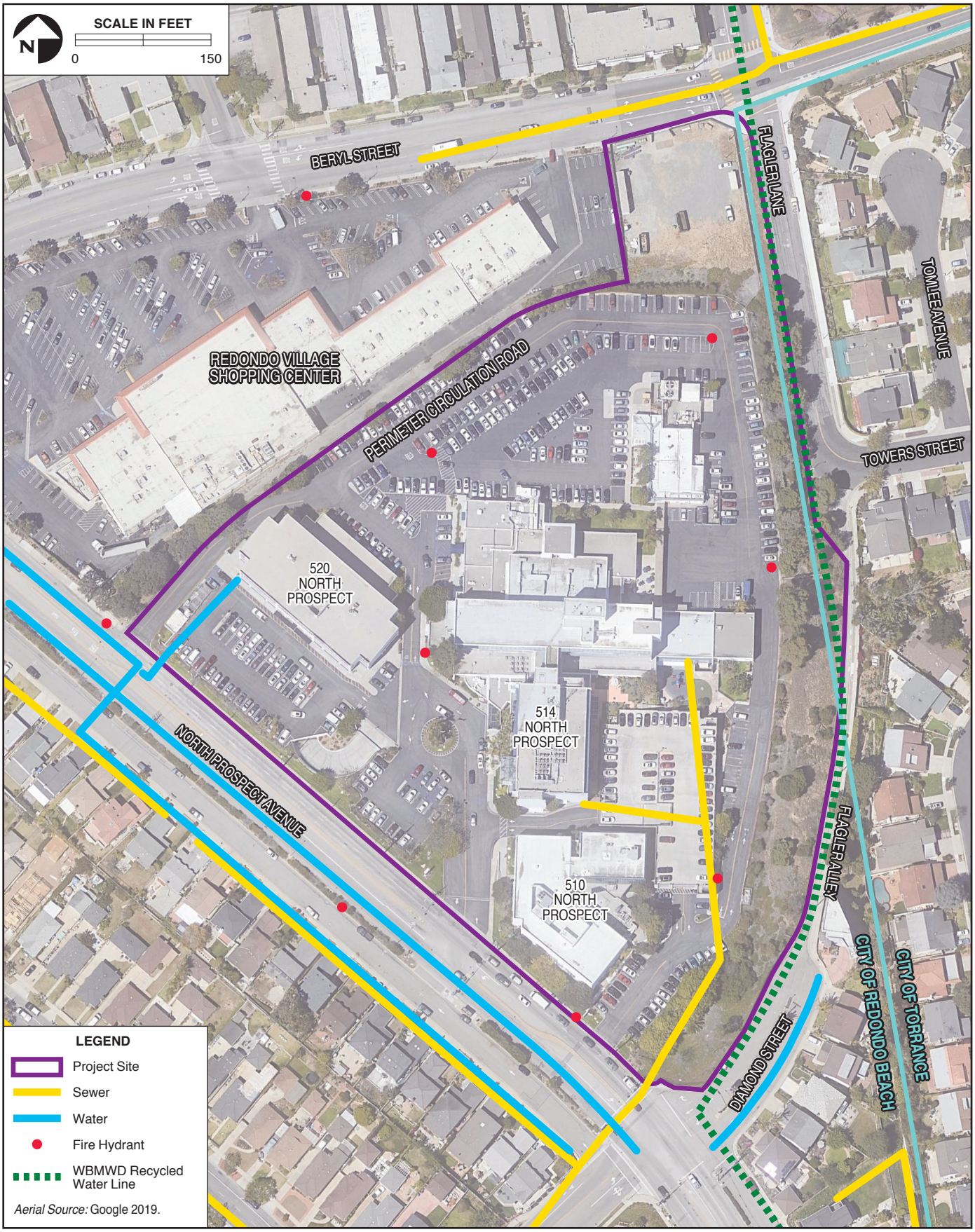
California Water Service Company (Cal Water) is a retail water agency that provides potable and non-potable water throughout California for single- and multi-family residential, commercial, and industrial uses, as well as landscaping irrigation and fire protection. The Project site is located within the Hermosa-Redondo District service area, which includes the Hermosa Beach, Redondo Beach, and portions (i.e., approximately 5 percent) of Torrance (Cal Water 2020). The Hermosa-Redondo District water system includes approximately 212 miles of pipeline, 17 storage tanks, four Metropolitan Water District of Southern California (MWD) connections, and well-head

treatment facilities at two active wells, which remove iron and manganese from groundwater (Cal Water 2020).

Water service to the BCHD campus is currently provided through an existing 8-inch water line located along North Prospect Avenue. The 8-inch water main line North Prospect Avenue has two domestic water tie-ins and two fire service tie-ins to the Project site. A 6-inch domestic water tie-in located towards the northwest corner of the Project site provides the connection to the Providence Little Company of Mary Medical Institute Building (i.e., 520 North Prospect Avenue) and an 8-inch domestic water tie-in located at the southwest corner of the Project site provides the connection to the Beach Cities Advanced Imaging Building (i.e., 510 North Prospect Avenue) as well as the Beach Cities Health Center (i.e., 514 North Prospect Avenue). The existing 8-inch water main along North Prospect Avenue can discharge 2,513 gallons per minute (gpm) while keeping a residual pressure of 20 pounds per square inch (psi) in the water main (John Labib & Associates 2020a).

Similarly, two 8-inch fire service tie-ins are located at the northwest boundary of the Project site, north of the surface parking lot, and southwest corner of the Project site. There are currently seven fire hydrants located on or adjacent to the BCHD campus, two of which are located within the northern surface parking lot, one on the west side and the other on the east side, south of the vacant Flagler Lot. A third fire hydrant is located adjacent to the west end of the Beach Cities Health Center. Another fire hydrant is located immediately east of the aboveground parking structure. The remaining three fire hydrants are located along North Prospect Avenue, including one adjacent to the southern driveway, one in the raised west-side median near the central driveway, and one adjacent to the northern driveway (see Figure 3.15-1). One additional fire hydrant is located on the southern sidewalk of Beryl Street approximately 500 feet west of the vacant Flagler Lot.

There are four fire hydrants located on the BCHD campus, including one at the western side of the Beach Cities Health Center. An additional three hydrants are located adjacent to the site along North Prospect Avenue.



wood.

Existing Utilities at the Project Site

FIGURE 3.15-1

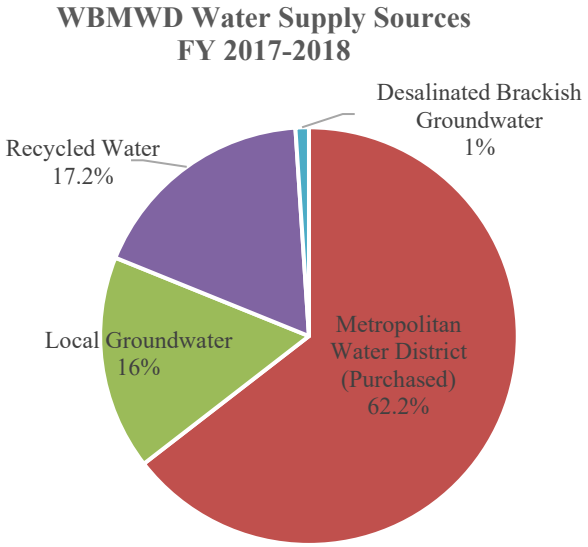
Fire Flows

A fire flow test was conducted for the Project site by John Labib & Associates in December 2019. The fire hydrant located adjacent to the north of the southern driveway and immediately west of the Beach Cities Advanced Imaging Building was used as a representative fire hydrant for the Project site. The fire flow test determined that this fire hydrant can discharge 2,513 gpm while keeping a residual pressure of 20 psi (John Labib & Associates 2020a; see Appendix L). This existing water flow and pressure is adequate to serve the proposed Project (John Labib & Associates 2020a; see Appendix L).

- **FIRE FLOW:** Flow rate of a water supply, measured at 20 psi residual pressure, that is available for firefighting (Appendix B of the 2016 California Fire Code). Fire flow is used to determine the quality of a water supply to an area. It also used as an aid to determine pipe size and arrangements to delivery water to a specific area.

Water Supply

Cal Water is responsible for providing water within the Hermosa-Redondo District service area and ensuring that the water quality meets applicable California health standards for drinking water. Cal Water's potable water supply consists of local groundwater and imported water from the West Basin Municipal Water District (WBMWD), a member agency of MWD (through both the State Water Project [SWP] and the Colorado River Aqueduct). Additionally, non-potable treated urban runoff water is produced by WBMWD's Edward C. Little's (ECL) Water Recycling Facility for landscaping irrigation and other approved non-potable water uses. Cal Water's water supply portfolio consists of imported water from MWD connections (80 to 85 percent) and local supplies, including local groundwater basins (15 to 20 percent) and recycled water from the ECL Water Recycling Facility (1 percent).



The WBMWD serves a total of 17 cities throughout southwest Los Angeles County across a service area of 185 square miles. WBMWD purchases imported drinking water from MWD and delivers those drinking water supplies throughout its service area, including the Cal Water service areas (WBMWD 2020a). In Fiscal Year (FY) 2017-2018, WBMWD water supplies totaled 171,386 acre-feet (AF) from several sources, including 50 AF of desalinated brackish groundwater (<1 percent), 106,601 AF of

purchased imported water from MWD (62.2 percent), 27,474 AF of groundwater (16 percent), and 29,522 AF of recycled water (17.2 percent) (see Table 3.15-2; WBMWD 2019).[1]

Table 3.15-2. WBMWD Water Supply from FY 2014-2015 to FY 2017-2018 (AF)

Water Supply Source	FY 2014-2015	FY 2015-2016	FY 2016-2017	FY 2017-2018
Desalinated Water	690	779	284	50
Imported Water	105,539	103,638	103,333	106,601
Groundwater	32,994	24,072	14,317	27,474
Recycled Water	29,103	30,116	30,468	29,522
Total	**175,680**	**162,286**	**164,964**	**171,386**

Note: FY 2017-2018 was the most recent water supply data made publicly available by WBMWD.
Source: WBMWD 2019.

Metropolitan Water District

Historically, the majority of the Cal Water's water demand is supplied by purchases from MWD. MWD is the largest water wholesaler for domestic and municipal uses in California, providing nearly 19 million people, with on average 1.7 billion gallons of water per day to a service area of approximately 5,200 square miles. MWD supplies water to its service area through a conveyance and distribution system that consists of the 242-mile-long Colorado River Aqueduct, five pumping plants, approximately 830 miles of pipeline, five water treatment plants, and nine reservoirs, plus a participation right in the SWP. MWD imports its water supplies from Northern California through the SWP's California Aqueduct and from the Colorado River by way of MWD's Colorado River Aqueduct. WBMWD and the City of Torrance are two of 26 member agencies that have preferential rights to purchase water from the MWD.

Local Groundwater

Cal Water owns water rights in the West Coast Groundwater Basin within the Hermosa-Redondo District service area. Cal Water relies on groundwater supplies extracted from the West Coast Basin's Silverado Aquifer to meet approximately 15 to 20 percent of the demand within the Hermosa-Redondo District service area (Cal Water 2016). Cal Water's adjudicated water rights are approximately 4,070 acre-feet per year (AFY). Between FY 2008-2009 and FY 2017-2018, the groundwater water demand within the Hermosa-Redondo District service area ranged from a low of 1,018 AF in FY 2008-2009 to a high of 2,186 AF in FY 2011-2012 (WBMWD 2019). Therefore, the groundwater demand within the Hermosa-Redondo District service area remains

[1] In FY 2017-2018, the WBMWD also supplied 7,740 AF of high-quality recycled water and imported water for two seawater barriers: the West Coast Basin Seawater Barrier and the Dominguez Gap Barrier. A seawater barrier is a series of injection wells positioned like a dam between the ocean and the groundwater aquifer. These wells inject water along the barrier to ensure that the water level near the ocean stays high enough to keep the seawater from seeping into the aquifer.

well below its adjudicated safe yield. However, various challenges have restricted the use of these local resources by Cal Water – particularly seawater intrusion issues. To prevent seawater intrusion, the Los Angeles County Flood Control District (LACFCD) maintains seawater barrier projects at the West Coast Basin Seawater Barrier and the Dominguez Gap Barrier. The Water Replenishment District of Southern California (WRD) purchases all of the water that is injected into the barriers and protects the basin through groundwater replenishment, deterrence of sea water intrusion, and groundwater quality monitoring of contamination through assessments on water pumped from the WRD service area (WBMWD 2019, 2020b). For further discussion of groundwater basin characteristics and hydrology, refer to Section 3.9, *Hydrology and Water Quality.*

Recycled Water

The remainder of water demand is met by Cal Water through recycled water supplies from the ECL Water Recycling Facility, which makes up approximately 1 percent of total water served to the Hermosa-Redondo District (Cal Water 2016). The facility's recycled water supply source is treated wastewater effluent from the Los Angeles Hyperion Wastewater Treatment Plant (Hyperion). The ECL Water Recycling Facility purchases approximately 37,600 AF, or roughly 13 percent of Hyperion's secondary effluent for treatment at the ECL Water Recycling Facility (WBMWD 2016). The ECL Water Recycling Facility's recycled water is treated to meet Title 22 of the California Code of Regulations (CCR) disinfected tertiary recycled water standards. Title 22 addresses specific treatment requirements for recycled water and lists approved uses. Approximately 2,000 tests are performed monthly at the ECL Water Recycling Facility to ensure water quality meets all Federal and State requirements (WBMWD 2016).

The ECL Water Recycling Facility treats wastewater effluent from the Los Angeles Hyperion Wastewater Treatment Plant to supply recycled water for approved uses.

The use of recycled water reduces the demand for potable water in the area. Cal Water recycled water supplies are primarily used for groundwater replenishment, landscape irrigation, and industrial process water. In calendar year (CY) 2015, ECL Water Recycling Facility delivered approximately 35,250 AF of recycled water to sites inside and outside its service area, saving enough potable water to serve roughly 70,500 households. Within ECL Water Recycling Facility's

service area, municipal and industrial recycled water use totaled 16,707 AF and seawater barrier 12,403 AF, which is about 9 percent of ECL Water Recycling Facility's current total water supplies (WBMWD 2016).

Water Demand

Cal Water Hermosa-Redondo District Water Demand

The annual water demand for the Hermosa-Redondo District service area from FY 2017-2018 was approximately 11,256 AF, including 9,951 AF (88.4 percent) imported water from MWD, 1,086 AF (9.6 percent) from local groundwater supplies, and 219 AF (1.9 percent) of recycled water from the ECL Water Recycling Facility (see Table 3.15-3; WBMWD 2019). The largest percentage of water use within the Hermosa-Redondo District is attributed to residential uses, which accounted for up to approximately 63.4 percent of total demand in 2015. Approximately 4.2 percent of total demand was attributed to system water losses (Cal Water 2016). As shown in Table 3.15-3, water demand for the Hermosa-Redondo District decreased from FY 2014-2015 to FY 2016-2017 and increased again in FY 2017-2018, but did not reach FY 2014-2015 levels.

Table 3.15-3. Hermosa-Redondo District Water Demand from FY 2014-2016 to FY 2017-2018 (AF)

Water Supply Source	FY 2014-2015	FY 2015-2016	FY 2016-2017	FY 2017-2018
Imported Water	10,098	9,169	9,280	9,951
Groundwater	1,896	1,541	1,397	1,086
Recycled Water	147	156	147	219
Total	**12,141**	**10,866**	**10,824**	**11,256**

Source: WBMWD 2019.

Project Site Water Demand

The existing BCHD campus generates demand for potable water associated with the existing medical, residential (i.e., Memory Care units), food service, and office uses on-site. Existing water demand for the Project site was estimated using indoor water demand factors from the California Emissions Estimator Model (CalEEMod) by land use type, consistent with Section 3.2, *Air Quality*. Landscaping irrigation demand was estimated based on the Water Supply Assessment for the Redondo Beach Water Front Project (Yarne & Associates, Inc. 2015). Based on these water demand factors and the total square footage and number of beds, the annual average water demand for the existing Project site is approximately 39,231,667 gallons per year (approximately 120.48 AFY) (John Labib & Associates 2020a).

Table 3.15-4. Estimated Existing Project Site Water Demand

Existing Use	Waste Generation Factor	Size	Water Demand (gal/year)	Water Demand (gpm)
Beach Cities Advanced Imaging Building (510 North Prospect Avenue)				
Medical Office	125,481 gal per year per 1,000 sf	52,000 sf	6,525,012	12.41
Providence Little Company of Mary Medical Institute (520 North Prospect Avenue)				
Medical Office	125,481 gal per year per 1,000 sf	47,700 sf	5,985,444	11.39
Beach Cities Health Center (514 North Prospect Avenue)				
Hospital	89,814 gal per year per 1,000 sf	60 beds	5,388,840	10.25
Medical Office	125,481 gal per year per 1,000 sf	158,000 sf	19,825,998	37.72
Landscaping	18.25 gal per year per sf	82,541 sf	1,506,373	2.87
		Existing Average Daily Flow	**39,231,667**	**74.64**

Notes: Indoor Water Demand rates are referenced from CalEEMod Appendix D, Table 9.1.
Landscaping water use estimate of 2.5 AFY per acre (18.25 gallons per year per sf) based on the Redondo Beach Water Front Project Water Supply Assessment (Yarne & Associates, Inc. 2015).
The existing above ground parking structure at 512 North Prospect Avenue does not generate water demand and therefore is not included.
Source: John Labib & Associates 2020a (see Appendix L).

Water Conservation

As required of all urban water suppliers by the California Department of Water Resources (DWR), Cal Water has prepared a responsive Water Shortage Contingency Plan designed to effectively enforce staged water use restrictions based on district water demands, agency supplies, and varying drought conditions. Likewise, WBMWD, as part of development of its Urban Water Management Plan (UWMP), has completed a Water Supply Allocation Plan designed to calculate member agency supply allocations in order to meet State mandated water use reduction targets (see Section 3.15.1.2, *Regulatory Setting – Water Infrastructure and Supply*).

As a result of extended drought conditions, both Cal Water and WBMWD water service agencies have elected to pursue measures which would ensure the reliability of water supplies, reduce customer water usage, and promote water conservation measures. Water conservation measures limit allocations of water supplies but ensure efficiency and distribution.

In FY 2017-2018, the Hermosa-Redondo District purchased its highest volume (i.e., 218.7 AF) of recycled water from WBMWD. WBMWD's recycled water line runs north through Torrance west into Redondo Beach and north along North Prospect Avenue, Flagler Lane, and Flagler Alley, adjacent to the east of the Project site (WBMWD 2019).

Future Water Demand and Projected Water Supply

The WBMWD's 2015 UWMP presents water demand projections through 2040 based on MWD's 2015 UWMP projections for total demand and water use efficiency (WBMWD 2016). Growth projections are used from the Southern California Association of Government's (SCAG's) 2012 Regional Transportation Plan (RTP) / Sustainable Community Strategy (SCS) (SCAG 2012).[2] Within MWD's forecast of total demand for WBMWD is an estimate of water conservation and a projection of retail demand after future water conservation is taken into account. This includes water conserved using best management practices (BMPs) from active, code-based, and price-effect conservation. Active conservation levels are derived by calculating water savings from all active program device-based savings installed to date. Code-based conservation levels are derived by calculating water savings from devices covered by existing water conservation ordinances and plumbing codes, including the state Model Water Efficient Landscape Ordinance, with replacement and new construction rates driven by demographic growth consistent with SCAG land use and transportation plans used to derive retail demand. Price-effect conservation is derived by calculating water savings by retail customers attributable to the effect of changes in the real (inflation adjusted) price of water. WBMWD's projected recycled water demands are based on WBMWD's planned projects for recycled water and desalination through 2030 as outlined in the Capital Implementation Master Plan. Between FY 2025 and FY 2040, WBMWD service area demands are projected to increase by approximately 5,806 AF, or 4.2 percent (see Table 3.15-5).

Table 3.15-5. Projected WBMWD Supply

Water Supply	Projected Water Supply (AF)				
	2020	2025	2030	2035	2040
Potable and Raw Water	99,426	100,154	100,173	100,413	99,991
Recycled Water	38,894	44,135	44,135	44,135	44,135
Total	**138,320**	**144,289**	**144,308**	**144,548**	**144,126**

Source: WBMWD 2016.

Cal Water projects a slight (approximately 2 percent) increase in total water supplies, increasing from 11,256 AF in FY 2017-2018 to 12,747 AF in 2040 (Cal Water 2016). Due to a flat 4,070 AFY adjudicated right to WBMWD's Silverado Aquifer supplies, total available groundwater is projected to remain consistent through 2040 (see Table 3.15-6). Recycled water supplies are also projected to remain the same through 2040, with a recycled water supply of 150 AFY. The only

[2] The WBMWD's 2015 UWMP relies on the growth projections in the 2012 RTP/SCS. However, for transportation planning purposes, the SCAG recently prepared Connect SoCal, the 2020-2045 RTP/SCS (refer to Section 3.14, *Transportation*).

variable in total projected water supplies is imported water from MWD, which varies year-by-year based on service area demands and water use conservation.

Table 3.15-6. Projected Hermosa-Redondo District Supplies

Water Supply	Projected Water Supply (AF)			
	2025	2030	2035	2040
Groundwater	4,070	4,070	4,070	4,070
Imported Water	8,320	8,357	3,425	8,527
Recycled Water	150	150	150	150
Total	**12,540**	**12,577**	**12,645**	**12,747**

Source: Cal Water 2016.

The Cal Water Hermosa-Redondo District 2015 UWMP concludes that Cal Water's water supply is adequate to meet water demand under normal, single dry year, and multiple dry year conditions through the year 2040 (Cal Water 2016).

3.15.1.2 Regulatory Setting – Water Infrastructure and Supply

State Policies and Regulations

California Urban Water Management Planning Act

The Urban Water Management Planning Act (UWMPA) (California Water, Code Division 6, Part 2.6, Sections 10610 *et seq.*) was developed due to concerns over potential water supply shortages throughout California. The UWMPA requires information on water supply reliability and water use efficiency measures. As part of the UWMPA, municipal water suppliers that serve more than 3,000 customers or provide more than 3,000 AFY are required to develop and implement UWMPs to describe water supply, service area demand, population trends, and efforts to promote efficient use and management of water resources. An UWMP is intended to serve as a water supply and demand planning document that is updated every 5 years to reflect changes in the water supplier's service area including water supply trends, and conservation and water use efficiency policies.

Senate Bill 610

SB 610 became effective January 1, 2002. SB 610, codified in California Water Code, Division 6, Part 2.6, Sections 10910 *et seq.*, describes requirements for water supply assessments and UWMPs applicable to the California Environmental Quality Act (CEQA) process. SB 610 requires that water suppliers must prepare a water supply assessment for projects that are subject to CEQA and exceed a specified minimum size to determine whether the projected water demand associated with the project is included as part of the most recently adopted UWMP. The size requirement is

specified according to development type but generally includes developments with water consumption that would be equivalent to or greater than the amount of water required by a 500-dwelling unit project. The proposed Project includes 157 new Assisted Living units and 60 replacement Memory Care units, which is substantially below this 500-dwelling unit threshold. Therefore, a water supply assessment is not required for the proposed Project.

California Code of Regulations, Title 20

Title 20 of the California Code of Regulations, Sections 1605.1(h) and 1605.1(i) establishes efficiency standards (i.e., maximum flow rates) for all new federally regulated plumbing fittings and fixtures, including showerheads, lavatory faucets, and flush toilets. Amongst these standards, the maximum flow rate is 1.2 gpm at 60 psi for residential lavatory faucets and aerators, 1.8 gpm with optional temporary flow of 2.2 gpm at 60 psi for kitchen faucets and aerators, 0.5 gpm at 60 psi for public lavatory faucets, and 1.8 gallons per flush for flush toilets, effective January 1, 2016. Additionally, Section 1605.3(h) establishes State efficiency standards for non-federally regulated plumbing fittings, including commercial pre-rinse spray valves.

California Green Building Standard Code (CALGreen)

CALGreen builds on standards established under Title 20 of the CCR and sets forth water efficiency standards (i.e., maximum flow rates) for all new federally regulated plumbing fittings and fixtures. Updates to CALGreen were published July 1, 2019 and became effective January 1, 2020. Mandatory standards for water use are shown in Table 3.15-7.

Table 3.15-7. CALGreen Mandatory Maximum Flow Rates

Fixture Type	Maximum Allowable Flow Rate – Residential	Maximum Allowable Flow Rate – Nonresidential
Showerheads	1.8 gpm at 80 psi	2.0 gpm at 80 psi
Lavatory Faucet	1.2 gpm at 60 psi	0.5 gpm at 60 psi
Kitchen Faucet	1.8 gpm at 60 psi	1.8 gpm at 60 psi
Water Closets	1.28 gallons per flush	1.28 gallons per flush
Floor-mounted Urinals	0.5 gallons per flush	0.5 gallons per flush
Wall-mounted Urinals	0.125 gallons per flush	0.125 gallons per flush

Source: CALGreen Building Standards Code Section 4.303.

Health and Safety Code Section 17921.3

Requires low-flush toilets and urinals in all buildings, including commercial, residential, institutional, and industrial buildings.

California Fire Code

The 2016 California Fire Code is one of 12 parts of an official compilation referred to as the California Building Standards Code. The purpose of the California Fire Code is to establish the minimum requirements consistent with nationally recognized good practices to safeguard the public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises, and to provide safety and assistance to fire fighters and emergency responders during emergency operations. The California Fire Code includes standards for water supply and pressure to adequately support firefighting capabilities, including appendix standards for automatic fire sprinkler systems that reduce water demands to a building for firefighting reduce up to 75 percent with a minimum required fire-flow 1,500 gpm. The latest California Fire Code published by the California Building Standards Commission were adopted in 2016 and became effective January 1, 2017.

City of Redondo Beach Local Policies and Regulations

Redondo Beach General Plan Utilities Element

The goals of the Redondo Beach General Plan Utilities Element are to provide a modern and efficient system of transmission, distribution, and storage of water supplies to the City capable of meeting the normal daily and peak hour demands of the community, including adequate fire flow requirements, and to meet existing and future water demand in a timely and cost-effective manner.

Objective 6.3: Provide a modern and efficient system of transmission, distribution, and storage of water supplies to the City capable of meeting the normal daily and peak hour demands of the community, including adequate fire flow requirements, to meet existing and future water demand in a timely and cost effective manner.

Policy 6.3.1 Ensure the provision of adequate water supply, transmission, distribution, and storage, throughout the city to serve the community's residential, industrial, commercial, and recreational needs.

Policy 6.3.2 Ensure the provision and construction of upgraded and expanded water supply, transmission, distribution, and storage facilities throughout the city to support existing and future development.

Policy 6.3.3 Ensure the maintenance and replacement of existing water supply, transmission, distribution, and storage facilities, as necessary to adequately serve the city's water needs.

Policy 6.3.4 Require that the approval of new development in the city be contingent upon the ability of the project to be served with adequate water infrastructure and service.

Policy 6.3.7 Ensure that the costs of specific improvements to the existing water supply, transmission, distribution, and storage facilities necessitated by a new development project be borne by the project proponent; either through the payment of impact fees, or by the actual construction of the necessary physical improvements.

Policy 6.3.12 Require that development projects of sufficient scale to make it economically feasible incorporate dual pipe systems for the use of reclaimed water for irrigation and other State and County health approved purposes where these uses are accessible to trunkline distribution service.

Policy 6.3.14 Require that large scale development projects evaluate the feasibility of and where feasible incorporate gray water re-capture, storage, and distribution systems.

Redondo Beach General Plan Land Use Element

The City's Land Use Element includes policies that promote water conservation and sustainability:

Policy 1.55.10 Use reclaimed water for the irrigation of public and private landscape, as available.

Policy 1.56.10 Require that street landscape incorporate a drought-conscious irrigation system or other methods to provide proper watering, where irrigation systems are required.

Redondo Beach Municipal Code

The Redondo Beach Municipal Code (RBMC) establishes fire extinguishing requirements and water conservation measures.

Section 3-4.111 – Fire Extinguishing Systems. Requires an automatic sprinkler system throughout every new structure except in occupancies under 750 sf. All

piping and attached appurtenances subjected to system working pressure shall be hydrostatically tested at gauge pressure of 200 psi (13.8 bar) or 50 psi (3.4 bar) in excess of the system working pressure, whichever is greater, and shall maintain that pressure at gauge pressure of +/- 5 psi (0.34 bar) for 2 hours.

Section 9-23.01 – Adoption of 2019 California Green Building Standards Code. The City adopted a Green Building Ordinance in 2008, with updates in 2019. This ordinance requires the use of highly efficient plumbing fixtures, irrigation, and landscaping for new construction, major remodels, and new or remolded landscapes.

Section 10-2.1900 – Landscaping Regulations. Requires the use of drought-tolerant plants where feasible. Recommended drought-tolerant plant species are listed in the City of Redondo Beach List of Recommended Trees and Water Conserving Plants maintained by the Superintendent of Parks. Other plants consistent with the intent of this section, but not included in the List of Recommended Trees and Water Conserving Plants, may be approved by the Community Development Director. This section also adopts the California State Model Water Efficient Landscape Ordinance by reference.

3.15.1.3 Impact Assessment Methodology – Water Infrastructure and Supply

Thresholds for Determining Significance

The following thresholds of significance are based on Appendix G of the 2020 CEQA Guidelines. For purposes of this EIR, implementation of the proposed Project may have a significant adverse impact on water infrastructure and supply if:

a) The project would require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects; and/or

b) The project would not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.

Methodology

The proposed Project has been evaluated to determine projected utility demands for the proposed Project and its effects on the water supply as well as the current capacity of water infrastructure .

The proposed Project was evaluated for impacts to potable water utilities based on data published by the WBMWD and Cal Water and a Water Memorandum for the proposed Project (John Labib & Associates 2020a).

The ability of the local water lines to serve the Project site was analyzed based on John Labib and Associates' (2020a) calculated fire flow at the fire hydrant located adjacent to southern driveway into the Project site (see Appendix L). The results of fire flow testing were analyzed to calculate adequate pressure and flow for firefighting purposes. John Labib & Associates prepared a Water Memorandum for the proposed Project (see Appendix L). The analysis of water supply estimates the total water demand generated by the proposed Project and compares that demand to Cal Water's available water supply. Potential impacts resulting from the proposed Project were compared with criteria from CEQA Appendix G to assess their significance.

3.15.1.4 Project Impacts and Mitigation Measures – Water Infrastructure and Supply

Impact Description (UT-1)

a) The project would require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects.

UT-1 **Implementation of the proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program – would increase the overall operational water demand at the Project site. However, with the exception of on-site trenching for the new connection to the 8-inch water line located along North Prospect Avenue, the proposed Project would not require or result in the substantial construction or expansion of existing water facilities. Therefore, potential impacts to water infrastructure would be *less than significant.***

Construction

As described in Section 2.5.1.6, *Construction Activities*, Section 3.2, *Air Quality*, and Section 3.6, *Geology and Soils* (refer to Impact GEO-2) construction of the proposed Project would require water for dust control, equipment cleaning, soil excavation and export, and re-compaction and grading activities. Based on a review of construction projects of similar size, duration, and type of construction (e.g., The Plaza and the Ocean Avenue Project located in the City of Santa Monica), water use is conservatively estimated at 1,000 to 2,000 gpd during construction, depending on the construction phase (e.g., demolition, excavation, building construction, etc.). Temporary

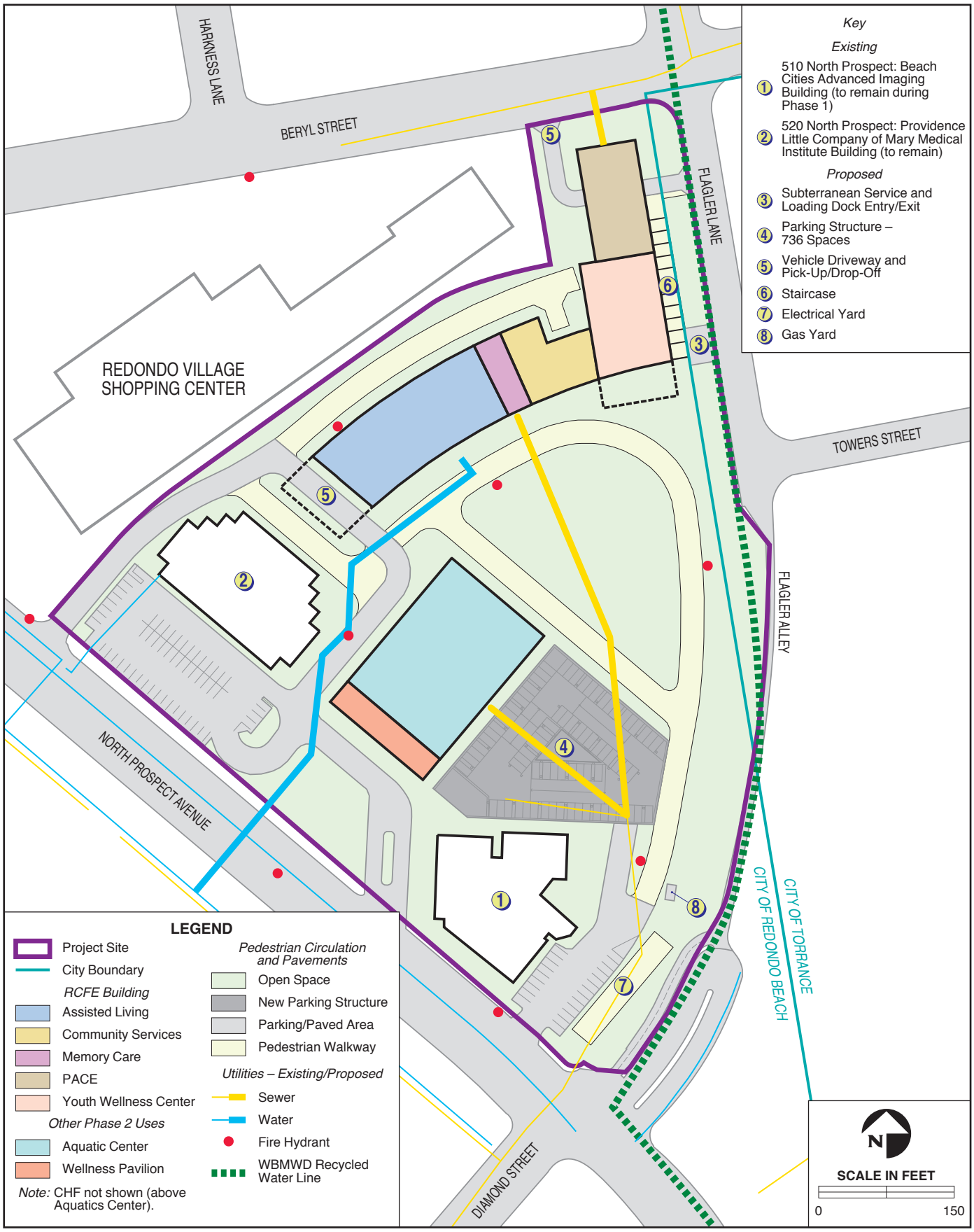
construction-related water use would be less than 2 percent of the existing water consumption at the Project site, which is estimated to be approximately 107,484 gpd (refer to Table 3.15-4) and could be accommodated by the existing water infrastructure on-site. Overall, temporary construction-related impacts associated with water demand and water infrastructure would be *less than significant*.

As described in Section 2.5.1.4, *Utilities and Services,* water would be supplied by Cal Water from the existing 8-inch water line located along North Prospect Avenue. The proposed Project would connect to Cal Water's water supply system with a new lateral line installed within the Project site (see Figure 3.15-2). The new lateral would connect the proposed Residential Care for the Elderly (RCFE) Building to the 8-inch water line northwest of the central driveway. The existing 8-inch lateral connecting to the Providence Little Company of Mary Medical Institute Building (520 North Prospect Avenue) would remain protected in place during construction. None of the other existing water lines would be affected by the proposed Project. In addition to the proposed laterals, the Project may also include a connection to the existing 4-inch diameter purple pipe along Diamond Street, Flagler Alley, and Flagler Lane (for recycled water). Construction associated with the installation of laterals and the potential installation of a purple pipe connection would primarily involve minor trenching on-site.

Given the location of the BCHD campus and the existing water infrastructure within the Redondo Beach, all work associated with the proposed water lateral would be subject to review and approval by the Redondo Beach Department of Public Works. All appropriate permits (e.g., public right-of-way permits associated with connections to off-site the water distribution system) would be obtained, as necessary. The construction contractor would be required to notify the Redondo Beach Department of Public Works in advance of ground disturbance activities to existing avoid water lines and/or disruption of water service to off-site properties. Compliance with all required permit requirements enforced by the Redondo Beach Department of Public Works would ensure that temporary impacts on water supply and infrastructure during construction activities would be *less than significant.*

Operation

In order to assess the operational water infrastructure needs associated with the proposed Project, John Labib & Associates prepared a Water Memorandum (see Appendix L). Domestic water demand is the primary contributor to water consumption associated with the proposed Project (see Impact UT-2); fire flow represents the peak water demand on the City's water infrastructure,



wood.

Proposed Utilities at the Project Site

FIGURE 3.15-2

including water flow and pressure. The average water demand associated with the proposed Project is 45,431,840 gallons per year (86.44 gpm) during Phase 1 and 56,426,355 gallons per year (107.35 gpm) during Phase 2. Additionally, John Labib & Associates assessed the flow requirements based on the size of the largest building included in the proposed Project. The proposed Project would generate a maximum demand of approximately 107.35 gpm of domestic water and 5,750 gpm of fire water totaling 5,857.35 gpm. As measured by the fire flow test conducted for the proposed Project, the maximum allowable flow from the main is 2,513 gpm, which is less than the required fire flow. However, new buildings developed under the proposed Project, including the proposed parking structure would include automatic sprinklers, which reduce required fire flow of buildings by up to 75 percent. As such, incorporation of automatic sprinklers in new buildings would create a minimum fire flow requirement of 1,437.5 gpm and total domestic and fire flow requirement of 1,464.3 gpm. Therefore, the existing water flow and pressure is adequate to serve the proposed Project in accordance with Appendix B of the 2016 California Fire Code (John Labib & Associates 2020a).

Although net average daily water demand would increase by approximately 6,200,173 gallons per year (11.8 gpm), no upgrades to public water mains would be needed under the proposed Project. Cal Water's potable water system has the infrastructure and the capacity to serve the proposed Project. With regard to the use of recycled water for operational landscaping irrigation, the proposed Project may use recycled water from the WBMWD's recycled water line, located adjacent to the Project site. These options would be explored as final design plans are further developed. The ECL Water Recycling Facility currently operates 55 percent of capacity; therefore, use of recycled water would not require an expansion of this facility.

Cal Water's water network has adequate capacity, and the proposed Project would not result in the need for new or additional water infrastructure. Impacts to water infrastructure would be *less than significant*.

Impact Description (UT-2)

b) The project would not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.

UT-2 The proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program – would result in an overall increase in water demand, but this water demand would be adequately met by existing and planned future water supplies. This impact would be *less than significant.*

As described in Section 3.15.1.1, *Environmental Setting – Water Infrastructure and Supply*, the existing water demand associated with the Project site is approximately 39,231,667 gallons per year (107,484 gpd) (John Labib & Associates 2020a). The proposed uses associated with Phase 1 of the proposed Project would increase water demand at the Project site. Using CalEEMod water demand factors, John Labib & Associates (2020A) calculated a projected Phase 1 water demand of 45,822,139 gallons per year (125,540 gpd) (see Table 3.15-8). Therefore, the proposed Phase 1 operations would increase water demand by approximately 6,590,469 gallons per year (18,056 gpd) or 16.8 percent of existing water demand.

Table 3.15-8. Projected Water Demand for Phase 1 of the Proposed Project

Proposed Use	Water Consumption Factor	Size	Water Demand (gal/year)	Water Demand (gpm)
Assisted Living				
Studio Unit	65,154 gal/year per DU	37 units	2,410,698	4.59
Single-Bedroom Unit	65,154 gal/year per DU	100 units	6,515,400	12.40
Two-Bedroom Unit	65,154 gal/year per DU	20 units	1,303,080	2.48
Common Areas	125,481 gal/year per 1,000 sf	84,000 sf	10,540,404	20.05
Memory Care				
Two-Bedroom Unit	65,154 gal/year per DU	60 units	3,909,240	7.44
Common Areas	125,481 gal/year per 1,000 sf	24,500 sf	3,074,285	5.85
PACE Services				
Medical Office	125,481 gal/year per 1,000 sf	14,000 sf	1,756,392	3.34
Community Services				
Office	177,734 gal/year per 1,000 sf	6,270 sf	1,114,392	2.12
Youth Wellness Center				
Counseling Center	42,890 gal/year per 1,000 sf	9,100 sf	390,299	0.74
Landscaping and Irrigation				
Landscaping Irrigation Demand	18.25 gal/year per sf	125,890 sf	2,297,493	4.37
510 and 520 North Prospect Avenue to Remain (refer to Table 3.15-4)			12,510,456	23.80
Average Daily Demand			45,822,139	87.18

Notes: Indoor Water Demand rates are referenced from CalEEMod Appendix D, Table 9.1.
Landscaping water use estimate of 2.5 AFY per acre (18.25 gallons per year per sf) based on the City of Redondo Beach Water Front Project Water Supply Assessment (Yarne & Associates, Inc. 2015).
Some uses do not generate water demand (e.g., the existing above ground parking structure at 512 North Prospect Avenue, janitorial closets, storage, etc.) and therefore, are not included.
Source: John Labib & Associates 2020a; see Appendix L.

The proposed Wellness Pavilion, Aquatic Center, and Center for Health and Fitness uses associated with Phase 2 of the proposed Project would further increase water demand at the Project

site. John Labib & Associates (2020a) calculated a water demand of 56,426,355 gallons per year (154,593 gpd) (174.92 AFY) for the Phase 2 development program (see Table 3.15-9). Therefore, the proposed Project would increase the existing water demand by approximately 17,194,688 gallons per year (52.8 AFY), a 43.8 percent increase over the existing demand.

Table 3.15-9. Projected Water Demand for Phase 2 of the Proposed Project

Proposed Use	Water Use Factor	Size	Water Demand (gal/year)	Water Demand (gpm)
Wellness Pavilion				
Office	177,734 gal/year per 1,000 sf	19,271 sf	3,425,112	6.52
Research and Development	491,694 gal/year per 1,000 sf	5,000 sf	2,458,470	4.68
Restaurant	303,534 gal/year per 1,000 sf	5,782 sf	1,755,034	3.34
Aquatic Center				
Health Club/Spa	59,143 gal/year per 1,000 sf	27,015 sf	1,597,748	3.04
Office	177,734 gal/year per 1,000 sf	1,813 sf	322,232	0.61
Center for Health and Fitness				
Health Club/Spa	59,143 gal/year per 1,000 sf	20,000 sf	1,182,860	2.25
Landscaping				
Landscaping Irrigation Demand	18.25 gal/year per sf	118,370 sf	2,160,253	4.11
510 and 520 North Prospect Avenue to Remain (refer to Table 3.15-4)			12,510,456	23.80
Phase 1 Water Use (refer to Table 3.15-8)			31,014,190	59.01
Average Daily Demand			56,426,355	107.35

Notes: Indoor Water Demand rates are referenced from CalEEMod Appendix D, Table 9.1.
Landscaping water use estimate of 2.5 AFY per acre (18.25 gallons per year per sf) based on the City of Redondo Beach Water Front Project Water Supply Assessment (Yarne & Associates, Inc. 2015).
Some uses do not generate water demand (e.g., the existing above ground parking structure at 512 North Prospect Avenue, janitorial closets, storage, etc.) and therefore, are not included.
Counseling center has been assumed to have the same demand as a day-care center.
Restaurant has been conservatively assumed to have the same demand as a High turnover sit down restaurant.
Due to the programmatic nature of the Phase 2 development program, the provided water use factors for the Aquatics Center represent estimates based on similar uses. Health Club/Spa represent fitness centers that have both fitness equipment as well as indoor and outdoor pools.
Source: John Labib & Associates 2020a; see Appendix L.

However, the increase in water demand associated with the proposed Project (17,194,688 gallons per year; 52.8 AFY), would represent less than 1 percent of the total water supply of the projected Hermosa-Redondo District Supplies. Cal Water provided a will serve letter to BCHD on November 12, 2019 indicating that after all of the required permits are obtained, Cal Water will provide water service in accordance with the rules and regulations of the California Public Utilities

Commission (CPUC) (Cal Water 2019). No new or expanded water entitlements are necessary for the proposed Project.

Additionally, the proposed Project may also include a connection to the existing 4-inch diameter purple pipe along Diamond Street, Flagler Alley, and Flagler Lane (for recycled water). Recycled water could be used to reduce overall water demand, consistent with the Redondo Beach General Plan Land Use Element (e.g., Policy 1.55.10) associated with operational landscaping irrigation. Proposed uses for recycled water include landscape irrigation and architectural water features, water for mechanical cooling towers, and water for toilet flushing. Overall, the proposed Project would be consistent with local policies (e.g., City of Redondo Beach Green Building Codes) and impacts on potable water use associated with Project operations would be *less than significant*.

Cumulative Impacts – Water Infrastructure and Supply

The geographic context for cumulative impacts analysis on local water supplies is the Cal Water Hermosa-Redondo District service area. A cumulative impact related to water infrastructure and supply would result if the potential impacts associated with the proposed Project, when combined with other past, present, and future projects (refer to Table 3.0-1), would require construction of new or expanded water infrastructure, would require new or expanded entitlements, or would adversely affect the ability of the Hermosa-Redondo District to continue to meet its goal for 128 gallons per capita per day by 2020.

Water Infrastructure

The proposed Project, along with other past, present, and future projects in Redondo Beach, Torrance, Hermosa Beach, and Manhattan Beach would cumulatively increase the demand on the existing water distribution system and could potentially require relocation or construction of new or expanded water infrastructure, the construction or relocation of which could cause significant environmental effects. However, as with the proposed Project, individual projects would be subject to review by the permitting city to ensure that the existing water lines would be adequate to meet domestic water and fire flow demands. Cal Water regularly conducts evaluations to ensure its water infrastructure system is adequate to meet service needs and infrastructure system improvements would be implemented as needed as part of its Capital Implementation Master Plan. The Hermosa-Redondo District Infrastructure Improvement Plan identified 22,239 feet of water line segments within the Hermosa-Redondo District that appear to be undersized or operating at or near capacity and need to be upgraded between 2019 and 2021 (Cal Water 2018). Replacement of these water lines would require excavation, cut/cap or removal of older water lines, and installation of the new water lines located within existing paved streets and public rights-of-way.

This would involve typical short-term construction impacts, such as criteria air pollutant emissions (refer to Section 3.2, *Air Quality*), noise (refer to Section 3.11, *Noise*), and disruption of pedestrian, bicycle, and vehicle traffic (refer to Section 3.14, *Transportation*). The City of Redondo Beach's ongoing efforts to maintain and upgrade public infrastructure would ensure that the infrastructure system remains adequate for existing and planned future demands. However, as described in Impact UT-1, implementation of the proposed Project would not substantially affect water lines serving the Project site. Therefore, the proposed Project would not result in a *considerable contribution to cumulatively considerable impacts* on water infrastructure.

Water Demand and Supply

Cumulative water supply impacts are considered on a local and regional basis in accordance with the Cal Water Hermosa-Redondo District's 2015 UWMP, adopted by Cal Water in June 2016. The UWMP takes into consideration SCAG growth projections and local General Plan land use data. (The proposed Project is consistent with future SCAG growth projections; refer to Section 3.12, *Population and Housing*). As discussed under Impact UT-1 above, implementation of the proposed Project would result in a net increase in water demand at the Project site compared to existing conditions. However, as described in Section 3.15.1.1, *Environmental Setting – Water Infrastructure and Supply*, Cal Water has concluded that the Hermosa-Redondo District will have adequate water supplies to meet projected demands under normal, single dry year, and multiple dry year conditions through the year 2040. The contribution of the proposed Project to cumulative impacts on local water supplies would be negligible in comparison to existing and future planned water supplies in the Hermosa-Redondo District (i.e., less than 1 percent). The proposed Project would comply with regulatory standards to implement water conservation strategies and minimize indoor water use. Therefore, while the proposed Project would incrementally contribute cumulative demand, Cal Water would continue to effectively manage its water demand and significantly expand its water conservation programs that focus on reducing urban water use to meet future cumulative demand. Therefore, the proposed Project would not result in a *substantial contribution to a cumulatively considerable impacts* on water supply.

3.15.2 Wastewater Collection, Conveyance, and Treatment

3.15.2.1 Environmental Setting – Wastewater Collection, Conveyance, and Treatment

Wastewater Management

The Redondo Beach Public Works Department Sewer & Storm Drain Maintenance Division is responsible for all facilities that support the collection and conveyance of wastewater and

stormwater runoff necessary to protect the community from system overflows, reduce local flooding, and promote overall water quality of the marine environment. The City of Redondo Beach's sewer system consists of approximately 113 miles of sewer lines, 15 pump stations, and 9 backup generators (City of Redondo Beach 2020a). A System Evaluation and Capacity Assurance Plan (SECAP) and Rehabilitation and Replacement Program (RRP) was prepared for the City of Redondo Beach in 2010 to evaluate the sewer collection system and provide a framework for undertaking the construction of new and replacement facilities. During the 5-year period between January 2007 and December 2011, the City of Redondo Beach reported 58 sanitary sewer overflows (SSOs), of which 33 percent were attributed to root intrusion; 20 percent to pump station failure; and 13 percent to fats, oils, and grease. Approximately 1 mile of the system was calculated to have capacity issues and four locations (i.e., Lucia Street, Pacific Coast Highway, Helberta Street, and Esplande Street) have experienced repeat SSOs (USEPA 2011). However, these locations more than 0.9 miles of the Project site; SECAP shows no deficiencies within the boundaries of the Project site. Approximately 5 percent (i.e., 28,247 feet) of the City of Redondo Beach's sewer system is identified as an area of concern and recommended for annual inspection, as compared to the areas considered to have no deficiencies, which are inspected every 10 years (USEPA 2011).

Wastewater Treatment

Wastewater is collected through the City of Redondo Beach sewer systems, which flows into the Los Angeles County Sanitation District (LACSD) interceptors and is ultimately conveyed for treatment to the Joint Water Pollution Control Plant (JWPCP), located approximately 6 miles southeast of the City of Redondo Beach in the City of Carson. The JWPCP is part of the South Bay Cities Sanitation District, one of the 24 independent districts making up the LACSD. The South Bay Cities Sanitation District provides wastewater collection and treatment to the following eight cities: El Segundo, Hermosa Beach, Manhattan Beach, Palos Verdes Estates, Rancho Palos Verdes, Redondo Beach, Rolling Hills Estates, and Torrance. The JWPCP facility provides primary and secondary treatment for approximately 261.1 million gallons per day (mgd), and has a total permitted capacity of 400 mgd, making it one of the largest wastewater treatment plants in the world (LACSD 2015, 2020a).

Effluent from the JWPCP is required to meet the Los Angeles Regional Water Quality Control Board's (RWQCB's) requirements for the Pacific Ocean. The Los Angeles RWQCB imposes performance standards on water quality that are more stringent than the standards of the National Pollution Discharge Elimination System (NPDES) permit required under the Clean Water Act. Accordingly, JWPCP effluent to the Pacific Ocean is continually monitored by the South Bay

Cities Sanitation District to ensure that it meets or exceeds prescribed standards (Los Angeles RWQCB 2017).

Project Site Sewer System

The Project site is served by one 8-inch local sanitary sewer line located along Diamond Street, with one tie-in to the Project site located near the southern driveway (refer to Figure 3.15-1). The 8-inch sewer lateral connects to the Beach Cities Health Center (514 North Prospect Avenue) and additional 6-inch laterals, which connect to the Beach Cities Advanced Imaging Building (510 North Prospect Avenue) and Providence Little Company of Mary Medical Institute Building (520 North Prospect Avenue). An additional local sewer line is located along Beryl Street north of the Flagler Lot; however, this line does not tie-in to the Project site. According to City of Redondo Beach records of the existing sewer infrastructure, the Project site is the most upstream point of the 8-inch local sewer main. Wastewater and sewage collected by this sewer line is conveyed to an 8-inch gravity sewer main located at the intersection of North Prospect Avenue and Diamond Street. The capacity of the existing 8-inch sewer main is a maximum flow of approximately 4 inches (i.e., 50 percent) and 668,593 gpd. In a letter dated September 22, 2020, LACSD indicated that the wastewater flow originating from the Project site discharges from the local sewer line, which is not maintained by LACSD, for conveyance to LACSD's South Bay Cities Main Trunk Sewer, located in Gertruda Avenue at Catalina Avenue. LACSD's 20-inch diameter lined trunk sewer has a capacity of 2.4 mgd and conveyed a peak flow of 0.3 mgd when last measured in 2015 (LACSD 2020b).

Wastewater generation and sewer flows were estimated for the existing development at the Project site by John Labib & Associates in a site-specific Sewer Capacity Study prepared in August 2020 (see Appendix L). Existing wastewater generation for the Project site was estimated using Sewer Generation Factors established in the City of Los Angeles CEQA Thresholds Guide (2006) for each existing building use. Based on the City of Los Angeles CEQA Thresholds Guide (2006), the 8-inch sewer line located along Diamond Street conveys an average daily flow of approximately 68,925 gpd from the Project site (see Table 3.15-10; see Appendix L).

Table 3.15-10. Estimated Existing Project Site Wastewater Generation

Existing Use	Wastewater Generation Factor	Size	Average Daily Flow (gpd)
Beach Cities Advanced Imaging Building (510 North Prospect Avenue)			
Medical Office	250 gpd per 1,000 sf	52,000 sf	13,000
Providence Little Company of Mary Medical Institute (520 North Prospect Avenue)			
Medical Office	250 gpd per 1,000 sf	47,700 sf	11,925
Beach Cities Health Center (514 North Prospect Avenue)			
Hospital	75 gpd per bed	60 beds	4,500
Medical Office	250 gpd per 1,000 sf	158,000	39,500
		Existing Average Daily Flow	**68,925**

Notes: Hospital assumes same uses as Memory Care units.
The existing above ground parking structure, Maintenance Building, and mechanical rooms do not generate wastewater and therefore, are not included.
Wastewater Generation Factors are based on sewer flow estimates from Exhibit M.2-22 of the City of Los Angeles CEQA Thresholds Guide (2006).
Source: John Labib & Associates 2020b (see Appendix L).

3.15.2.2 Regulatory Setting – Wastewater Collection, Conveyance, and Treatment

Federal Policies and Regulations

Federal Water Pollution Control Act (1948)

The Federal Water Pollution Control Act, which was expanded in 1972 and is commonly known as the Clean Water Act, is a comprehensive statute aimed at restoring and maintaining the chemical, physical, and biological integrity of the nation's waters, including discharge waters of wastewater treatment processes. The Clean Water Act, in combination with other Federal environmental laws, regulates the location, type, planning, and funding of wastewater treatment facilities.

National Pollutant Discharge Elimination System

As authorized by the Clean Water Act, the NPDES program regulates point sources that discharge pollutants into waters of the U.S. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. The NPDES permit system is authorized and implemented by States and local water boards.

State Policies and Regulations

Operation of the JWPCP is subject to regulations set forth by the California Department of Public Health and the State Water Resources Control Board (SWRCB) in compliance with the Clean Water Act and NPDES program.

Regional Policies and Regulations

Los Angeles Regional Water Quality Control Board

Waste discharge pursuant to NPDES regulations for the LACSD water reclamation plant, (i.e., the JWPCP in Carson) are set forth in Los Angeles RWQCB Order No. R4-2017-0180, issued in 2017. This order sets discharge prohibitions (e.g., discharges that degrade water supplies) and effluent limitations and discharge specifications.

Los Angeles County Sanitation District

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 (i.e., 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. 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 2020b). The discharge limits enable water reclamation facilities to maintain their effluents within Los Angeles RWQCB wastewater discharge requirements.

Clearwater Program Master Facilities Plan

The Sanitation Districts of LACSD prepared the Clearwater Program Master Facilities Plan in November 2012 to identify a recommended plan that will meet the wastewater management needs of the Joint Outfall System through the year 2050. The Joint Outfall System is a regional, interconnected system of wastewater conveyance and treatment facilities within and under the jurisdiction of the 17 Sanitation Districts that participate in the Joint Outfall Agreement. The Clearwater Program Master Facilities Plan provides past, current, and projected water and wastewater volumes and evaluates the needs of the system. The plan also provides a guiding plan with programs to implement the recommended system improvements.

Los Angeles County Wastewater Ordinance

The Los Angeles County Wastewater Ordinance, adopted on April 1, 1972 and amended on July 1, 1998. The ordinance, among other things, regulates sewer construction and provides for the approval of plans for sewer construction and implements Federal and State pollution control regulations.

Los Angeles County Connection Fee Ordinance and Program

Capital improvements to LACSDs' 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 (i.e., capital facilities) required by new users connecting to the LACSDs' sewerage system or by existing users that significantly increase the quantity or strength of their wastewater discharge. The purpose of the Ordinance is to impose fees for the privilege of connecting facilities to the sewerage system or for the privilege of increasing the strength or quantity of wastewater discharged into connected facilities, and to provide for the collection of those fees. Revenue derived under the ordinance is used for expansion of the LACSDs' capital facilities and to fund loans as provided for in the ordinance.

3.15.2.3 Impact Assessment Methodology – Wastewater Collection, Conveyance, and Treatment

Thresholds for Determining Significance

The following thresholds of significance are based on Appendix G of the 2020 CEQA Guidelines. For the purposes of this EIR, implementation of the proposed Project may have a significant adverse impact on wastewater infrastructure if:

a) The project would require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects; and/or

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

Methodology

The proposed Project was evaluated for potential impacts to wastewater utilities based on data published by the LACSD and RWQCB, information provided by the City of Redondo Beach's

SECAP and RRP and the Sewer Capacity Study prepared for the proposed Project and peer reviewed by Wood Environment & Infrastructure Solutions, Inc. (see Appendix L). Projected wastewater generation was calculated using Wastewater Generation Factors from Exhibit M.2-22 of the City of Los Angeles CEQA Thresholds Guide (2006).

Projected wastewater utility demands for the proposed Project were compared with the capacity available for allocation within Redondo Beach. Potential impacts resulting from the proposed Project were compared with criteria from RWQCB, CEQA and Appendix G to assess their significance. Impacts associated with trenching for sewer utilities are discussed in Section 3.6, *Geology and Soils.*

3.15.2.4 Project Impacts and Mitigation Measures – Wastewater Collection, Conveyance, and Treatment

Impact Description (UT-3)

a) The project would require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects.

UT-3 Implementation of the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would result in an increase in operational wastewater generation at the Project site as compared to existing conditions. Environmental effects associated with the construction of wastewater facilities would be *less than significant.*

Construction

During construction of the proposed Project, existing uses at the Beach Cities Health Center and the attached Maintenance Building would remain in place until the completion of the RCFE Building, after which they would be re-located, therefore, existing wastewater generation would remain throughout construction. During construction, portable toilets would be provided by a private waste management company for use by construction workers and the waste would be disposed of off-site. Additionally, given the depth to groundwater, it is not anticipated that groundwater would be encountered during construction; therefore, the construction area would not need to be dewatered and no groundwater would be extracted or discharged to the existing sewer system. Therefore, construction activities would not generate wastewater flows and would not, along with existing and projected wastewater flows, approach the existing capacity of the JWPCP.

The facilities developed under the proposed Project would connect to the City of Redondo Beach's sewer system with new connections to the 8-inch sewer line along Diamond Street and a new connection the 8-inch sewer main along Beryl Street (refer to Figure 3.15-2). (Neither the existing facilities nor the proposed facilities on the BCHD campus would discharge wastewater to the City of Torrance sewer system.) Construction impacts would primarily involve trenching on-site to install the new sewer connections. Prior to ground disturbance, all proposed work associated with the sewer connections would be subject to review and approval by the Redondo Beach Department of Public Works. All appropriate permits (e.g., public right-of-way permits associated with connections to off-site sewer system) would be obtained, as necessary. The construction contractor would be required to notify Redondo Beach Public Works Department in advance of ground disturbance activities to existing avoid disruption of sewer service to off-site properties. Compliance with all required permit requirements required by the Redondo Beach Department of Public Works would ensure that temporary impacts on sewer capacity and wastewater infrastructure during construction activities would be *less than significant.*

Operation

The Sewer Capacity Study prepared for the proposed Project determined that the existing buildings on the Project site generate a peak daily demand of 68,925 gpd, which flows into the 8-inch local sewer main in North Prospect Avenue and away from the Project site to the southeast (John Labib & Associates 2020b). The existing sewer main capacity is 668,593 gpd (John Labib & Associates 2020b). The existing uses at the Beach Cities Advanced Imaging Building (510 North Prospect Avenue) and Providence Little Company of Mary Medical Institute Building (520 North Prospect Avenue) would remain, and would continue to generate a combined average of approximately 24,925 gpd (refer to Table 3.15-10).

Phase 1 of the proposed Project would decrease wastewater generation at the Project site compared to existing conditions. Using wastewater generation factors from the City of Los Angeles CEQA Thresholds Guide (2006), John Labib & Associates (2020), the projected daily peak demand during Phase 1 would be approximately 62,606 gpd (see Table 3.15-11). Therefore, the implementation of Phase 1 of the proposed Project would decrease existing wastewater generation by approximately 6,319 gpd.

Table 3.15-11. Projected Wastewater Generation for Phase 1 of the Proposed Project

Proposed Use	Wastewater Generation Factor	Size	Peak Daily Wastewater Generation (gpd)
Assisted Living			
Studio Unit	80 gpd per DU	37 units	2,960
Single-Bedroom Unit	120 gpd per DU	100 units	12,000
Two-Bedroom Unit	160 gpd per DU	20 units	3,200
Lobbies/Lounges	80 gpd per 1,000 sf	84,000 sf	6,720
Memory Care			
Two-Bedroom Unit	160 gpd per DU	60 units	9,600
Lobbies/Lounges	80 gpd per 1,000 sf	24,500 sf	1,960
PACE Medical Care Service			
Medical Office	250 gpd per 1,000 sf	14,000 sf	3,500
Community Services			
Office	150 gpd per 1,000 sf	6,270 sf	941
510 and 520 North Prospect Avenue to remain (refer to Table 3.15-10)			24,925
Average Daily Demand			62,606

Notes: DU = dwelling unit
Wastewater Generation Factors are based on sewer flow estimates for each use from Exhibit M.2-22 of the *Los Angeles CEQA Thresholds Guide (2006)*.
Source: John Labib & Associates 2020b; see Appendix L.

The implementation of Phase 2 of the proposed Project would increase wastewater generation at the Project site compared to Phase 1 and existing conditions,. Using wastewater generation factors from the City of Los Angeles CEQA Thresholds Guide (2006), the projected daily peak demand of the Phase 2 would be approximately 116,286 gpd (see Table 3.15-12). Therefore, Phase 2 of the proposed Project would increase the amount of wastewater currently transported by the sewer system by approximately 47,361 gpd from existing conditions.

Sewer lines have a flow capacity based on the diameter and slope of the pipe. To ensure that wastewater flows would be adequately accommodated, sewer lines are reviewed based on the guidelines for sewer design and operations from the Los Angeles Bureau of Engineering Manual – Part F. According to this guidance, sewer lines should be sized so the depth of the Peak Dry Weather Flow (PDWF), projected for the design period, shall be no more than 50 percent of the pipe diameter (d/D = 0.5 where d = depth of flow and D = pipe diameter).This design screening criterion of d/D = 0.5 for both PDWF and Peak Wet Weather Flow (PWWF) is used to assess whether future upgrades are needed to the City sewer system.

Table 3.15-12. Projected Wastewater Generation for Phase 2 of the Proposed Project

Proposed Use	Wastewater Generation Factor	Size	Peak Daily Wastewater Generation (gpd)
Wellness Pavilion			
Lobbies/Lounges	80 gpd per 1,000 sf	12,863 sf	1,029
Restaurant	30 gpd per seat	290 seats	8,700
Office	150 gpd per 1,000 sf	7,077 sf	1,062
Library	80 gpd per 1,000 sf	5,000 sf	400
Aquatic Center			
Health Club/Spa	800 gpd per 1,000 sf	27,015 sf	21,612
Lobbies/Lounges	80 gpd per 1,000 sf	500 sf	40
Office	150 gpd per 1,000 sf	1,813 sf	272
Center for Health and Fitness			
Health Club/Spa	800 gpd per 1,000 sf	20,000 sf	16,000
Youth Wellness Center			
Office	150 gpd per 1,000 sf	9,100 sf	1,365
Phase 1 Average Daily Demand (refer to Table 3.15-11)			37,681
510 and 520 North Prospect Avenue to remain (refer to Table 3.15-10)			24,925
Daily Demand			116,286

Notes: Wastewater Generation Factors are based on sewer flow estimates for each use from Exhibit M.2-22 of the City of Los Angeles CEQA Thresholds Guide (2006).
Due to the programmatic nature of the Phase 2 development program, the provided water use factors for the Aquatics Center represent estimates based on similar uses. Health Club/Spa represent fitness centers that have both fitness equipment as well as indoor and outdoor pools.
Source: John Labib & Associates 2020b; see Appendix L.

The Sewer Capacity Study prepared by John Labib & Associates (2020b) analyzed the capacity of the 8-inch local main along Diamond Street to convey the increased wastewater flow associated with the proposed Project. The Sewer Capacity Study concluded, after calculating the proposed sewer flow, the existing 8-inch sewer line along Diamond Street would adequately accommodate the proposed sewer flow without upgrades. As shown in Table 3.15-13, under the proposed peak flows would increase from 68,925 gpd to 116,285 gpd, representing net change of 47,361 or 69 percent increase from existing conditions. However, even with the increase in sewage flow associated with the proposed Project, proposed flows would remain below a 50 percent flow depth to diameter ratio. Therefore, the proposed Project and would not exceed existing infrastructure capacity (John Labib & Associates 2020b). .

Table 3.15-13. Wastewater Conveyance for the Proposed Project

	Peak Flow (gpd)
Existing	68,925
Proposed	116,286
Net Change	47,361
Existing Sewer Capacity	2,100,000

Source: John Labib & Associates 2020b; see Appendix L.

The proposed Project wastewater would continue to flow from the local sewer line along Diamond Street to the LACSD South Bay Cities Main Trunk Sewer, located in Gertruda Avenue at Catalina Avenue. The LACSD's 20-inch diameter lined trunk sewer has a capacity of 2.4 mgd and conveyed a peak flow of 0.3 mgd when last measured in 2015 (LACSD 2020b). As such, the LACSD main trunk sewer has a remaining sewer capacity of approximately 2.1 mgd and the increase in sewage flow of 0.047 mgd associated with the proposed Project would not exceed the LACSD sewer capacity. Therefore, implementation of the proposed Project would result in a *less than significant* impact on existing wastewater infrastructure.

Impact Description (UT-4)

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

UT-4 Implementation of the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would result in an overall increase in wastewater generation at the Project site; however, the proposed Project would not result in an exceedance of the Joint Water Pollution Control Plant's (JWPCP's) wastewater treatment capacity. Impacts would be *less than significant*.

As described in Section 3.15.2.1, *Environmental Setting – Wastewater Collection, Conveyance, and Treatment* wastewater is collected through the City of Redondo Beach's sewer system, flows into the LACSD interceptors, and is conveyed to the JWPCP. The JWPCP receives approximately 261.1 mgd of wastewater, and has a maximum capacity of approximately 400 mgd processed through full secondary treatment (LACSD 2015, 2020a). As described in Impact UT-3, the proposed Project would generate an increase in the average daily amount of wastewater by approximately 47,361 gpd during the implementation of Phase 2 (refer to Table 3.15-12). Given that the JWPCP has approximately 139 mgd of additional capacity, the increased wastewater flow

from the operation of the proposed Project would be less than 1 percent of the remaining capacity of the JWPCP. As a result, the JWPCP would have sufficient capacity to accommodate the increased wastewater generated by the proposed Project and would not require any upgrades to increase capacity due to the proposed Project. Therefore, impacts related to wastewater treatment capacity would be *less than significant*.

Cumulative Impacts – Wastewater Collection, Conveyance, and Treatment

A cumulative impact related to wastewater infrastructure would result if the potential impacts associated with the proposed Project, when combined with other past, present, and future projects (refer to Table 3.0-1), would require construction of new or expanded wastewater infrastructure, the construction of which would cause significant environmental effects or if there is inadequate capacity to serve the projected demand in addition to the wastewater treatment provider's existing commitments.

Wastewater Conveyance System

As described in Impact UT-3, the implementation of the proposed Project would result in a minor increase to the existing wastewater flows in the 8-inch sewer main and gravity main along Diamond Street (refer to Table 3.15-11 and Table 3.15-12). This increase in wastewater flow from the proposed Project would result in a maximum flow of approximately 1.59 inches, which is well below the current capacity of the line (see Appendix L).

Wastewater flows from the Project site would flow to Diamond Street for conveyance to LACSD's South Bay Cities Main Trunk Sewer, located in Gertruda Avenue at Catalina Avenue. As with all wastewater in the City of Redondo Beach, the wastewater flows from the Project site would be conveyed to the JWPCP. Cumulative projects within the cities of Redondo Beach, Torrance, and Hermosa Beach could create additional wastewater flows. Cumulative development may necessitate future upgrades to maintain adequate service capacity for existing and future development within Redondo Beach, Torrance, Hermosa Beach, and Manhattan Beach. However, required development fees for the proposed Project would support improvements and upgrades to capital facilities needed to maintain wastewater conveyance systems to an adequate service capacity. Construction of new sewer lines would require excavation, removal of older mains, removal of existing manholes, and installation of the new manholes and lines located within existing paved roads and public rights-of-way. This would involve typical short-term construction impacts, such as air emissions, noise, and disruption of pedestrian, bicycle, and vehicle traffic flows. However, as with the proposed Project, individual projects would be subject to City review

and approval, including environmental review to ensure that replacement or construction of new sewer mains would be mitigated to a less than significant level, as necessary.

The proposed Project's contribution to cumulative wastewater generation demand would be incremental in comparison to existing and future planned wastewater capacities of local wastewater treatment providers. Compliance of the proposed Project and future development projects with regulatory requirements that regulate wastewater discharge, such as the Los Angeles County Wastewater Ordinance, Los Angeles RWQCB wastewater treatment requirements, and local municipal codes would assist in ensuring that wastewater generation is minimized and wastewater demand is adequately served on a cumulative basis. If cumulative development projects exceed the capacity of the wastewater infrastructure, developers would be required to reduce water consumption and wastewater flow on a project-specific basis, including implementation of BMPs for water conservation and efficiency. Therefore, capacity of wastewater conveyance systems would be maintained and the proposed Project would not have a considerable cumulative impact on regional wastewater treatment.

Wastewater Treatment

LACSD manages the JWPCP, which serves Redondo Beach and portions of the greater Los Angeles area. LACSD's Clearwater Program Master Facilities Plan addresses wastewater disposal in the service area, including Redondo Beach, through the year 2050. The JWPCP facility provides primary and secondary treatment for approximately 261.1 mgd, and has a total permitted capacity of 400 mgd (LACSD 2015, 2020a). Based on current long-term estimates of population density and sewer demand, projected average annual wastewater flows for the JWPCP are 359 mgd in 2050 (LACSD 2012). Therefore, the proposed Project's estimated generation of 0.1 mgd (116,286 gpd) (including the existing uses at 510 and 520 North Prospect Avenue) would not have a considerable contribution to cumulative impacts on regional wastewater treatment.

3.15.3 Solid Waste Management Services

3.15.3.1 Environmental Setting – Solid Waste Management Services

Solid Waste Management System

Solid waste services for Redondo Beach and the Project site are provided under an exclusive franchise agreement with Athens Services, a commercial vendor providing solid waste haul and disposal service throughout Southern California (City of Redondo Beach 2020b). Athens Services provides residential and commercial solid waste collection and recycling services throughout

Redondo Beach and manages several Materials Recovery Facilities (MRFs) located in the Los Angeles County area.

Pursuant to its contract with the City of Redondo Beach, Athens Services is required to collect refuse, recyclables, and organics throughout the City through expanded recycling programs and curbside compost collection. Solid waste collected from all residential uses in Redondo Beach is disposed of at the Southeast Resource Recovery Facility. Solid waste collected from commercial and municipal uses in the Redondo Beach is hauled to one of Athens Services MRFs located in either the City of Industry or Sun Valley, where it is sorted and recycled. Solid waste is sorted and recycled at these facilities to ensure compliance with the State mandated 75 percent waste diversion rate under Assembly Bill (AB) 341 as well as the City of Redondo Beach's 75 percent diversion contract with Athens Services. Green waste is transported to American Organics in Victorville. Once sorted, solid waste materials that are not able to be recycled are transported to either the Chiquita Canyon Landfill or San Timoteo Landfill (see Table 3.15-14).

Table 3.15-14. City of Redondo Beach Disposal and Estimated Remaining Disposal Capacity (tons)

Landfill	2018 City Disposal		Permitted Daily Capacity (tpd)	Additional Remaining Capacity (tons)*	Remaining Life (years)
	Tons Per Day	Tons Per Year			
Chiquita Canyon Landfill	0.73	268	6,000	12,001,395	39
Mid Valley Sanitary Landfill	26.23	9,575	7,500	37,000,000	14
San Timoteo Sanitary Landfill	9.77	3,565	2,000	7,000,000	24
Victorville Sanitary Landfill	0.74	270	3,000	55,061,069	29
Southeast Resources Recovery Facility	53	16,390	2,240	N/A	N/A
Total	**90.47**	**29,800**	**20,740**	**111,062,464**	**N/A**

Notes: *As of December 31, 2018. Permitted daily capacity and additional remaining capacity for the Victorville Sanitary Landfill are from December 31, 2016 and therefore may be slightly inflated.
Source: Jesse Reyes 2020; County of Los Angeles Department of Public Works 2019; County of San Bernardino 2018.

Los Angeles County periodically evaluates demand for landfill capacity through the preparation of the County Integrated Waste Management Plan Annual Reports. Of the 10 Class III landfills that serve Los Angeles County, the following four landfills serve the City of Redondo Beach: Chiquita Canyon, Mid Valley, San Timoteo, and Victorville landfills.[3] These landfills have a combined remaining capacity of approximately 111,062,464 tons (refer to Table 3.15-14; County of Los Angeles Department of Public Works 2019; County of San Bernardino 2018). Mid Valley

[3] Class III landfills are landfills that are permitted to accept non-hazardous municipal solid wastes.

Landfill serves the City of Redondo Beach's waste disposal needs more than any other Class III landfill, and has a remaining disposal capacity of approximately 37,000,000 tons.

Construction and Demolition Waste

Construction and demolition (C&D) debris is generated when new structures are built and existing structures and hardscape are renovated or demolished, and results in the generation of solid waste. C&D can be composed of various materials, including concrete, asphalt, brick, glass, wood, metals, gypsum wallboard, and roofing. Materials that comprise C&D debris may also include land clearing debris, trees, stumps, soil, and rock from clearing construction sites. Construction waste typically consists of trim scraps of construction materials associated with the construction of new buildings and roadways such as wood sheetrock, masonry, and roofing materials.

C&D debris is typically disposed of at inert landfills instead of sanitary landfills, due to lower disposal costs or tipping fees. According to the County of Los Angeles Integrated Waste Management Plan 2018 Annual Report, the Azusa Land Reclamation Facility is the only permitted inert waste landfill in Los Angeles County that has a full solid waste permit. The remaining capacity of this landfill is 57.72 million tons or 46.17 million cubic yards (cy) as of the end of 2018 (County of Los Angeles Department of Public Works 2019). Given the permitted remaining capacity rate of 1,148 tons per day (tpd) in 2018, it is estimated that this capacity would be exhausted in 2046 (County of Los Angeles Department of Public Works 2019). Victorville Landfill in San Bernardino County, which serves the City of Redondo Beach, also accepts inert debris and has a remaining capacity of 55,061,069 tons as of the end of 2016 (County of San Bernardino 2018).

Project Site

Solid waste currently generated at the Project site includes waste associated with the Advanced Imaging Building (i.e., 510 North Prospect Avenue), Beach Cities Health Center (i.e., 514 North Prospect Avenue), and Providence Little Company of Mary Medical Institute Building (i.e., 520 North Prospect Avenue), including medical and office uses, such as medical supplies, food and beverage containers, paper products, and other miscellaneous trash. Solid waste generation was estimated based on the existing number of Memory Care residential units and employees for each land use type. The Project site currently generates approximately 330.22 tons of solid waste per year (Table 3.15-15). Based on the City of Redondo Beach's current diversion rate of 75 percent, approximately 247.67 tons of solid waste generated at the Project site per year are diverted from landfills by recycling or composting, and approximately 82.56 tons of solid waste per year are sent to landfills.

Table 3.15-15. Existing Solid Waste Generation at the Project Site

Existing Uses		Size	Solid Waste Generation Rate	Solid Waste (tons/year)
Providence Little Company of Mary Medical Institute Building	Medical and Health	18 employees	0.74 tons/employee/year	13.32
Beach Cities Advanced Imaging Building	Medical and Health	8 employees	0.74 tons/employee/year	5.92
Beach Cities Health Center	Medical and Health	75 employees	0.74 tons/employee/year	55.5
	Services	88 employees	2.31 tons/employee/year	203.28
	Memory Care	60 units	0.87 tons/unit/year	52.2
Total				**330.22**

Notes: Service/administrative uses were combined and waste generation rates were calculated using the most conservative Services generation rate of 2.31 tons/employee/year.
Number of employees represent estimates based on responses from Tenant Surveys created and distributed to Office Managers in support of the proposed Project.
Source: CalRecycle 2015.

3.15.3.2 Regulatory Setting – Solid Waste Management Services

State Policies and Regulations

California Integrated Waste Management Act

The California Integrated Waste Management Act (CIWMA) of 1989 (AB 939; California Public Resources Code, Section 40000 *et seq.*) established an integrated waste management hierarchy to guide the California Integrated Waste Management Board and local agencies in implementation, in order of priority: 1) source reduction; 2) recycling and composting; and 3) environmentally safe transformation and land disposal. The Act required each county to establish a task force to coordinate the development of countywide siting elements and citywide Source Reduction and Recycling Elements (SRREs). The Act also required each county to prepare, adopt, and submit to the Board an Integrated Waste Management Plan.

Senate Bill 1016

SB 1016 builds on AB 939 compliance requirements by implementing a simplified measure of jurisdictions' performance. SB 1016 accomplishes this by changing the measurement of waste reduction from a diversion rate to a disposal-based indicator – the per capita disposal rate. The purpose of the per capita disposal measurement system is to make the process of goal measurement as established by AB 939 simpler, timelier, and more accurate. Beginning with reporting year 2007 jurisdiction annual reports, diversion rates will no longer be measured. With the passage of SB 1016, only per capita disposal rates are measured. For 2007 and subsequent years, CalRecycle

compares reported disposal tons to population to calculate per capita disposal expressed in pounds/person/day.

Short Lived Climate Pollutants Bill of 2016 (Senate Bill 1383)

SB 1383 requires the California Air Resources Board (CARB) to approve and begin implementing a comprehensive strategy no later than January 1, 2018 to reduce emissions of short lived climate pollutants to achieve a reduction in methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030. It also establishes 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 grants CalRecycle the regulatory authority required to achieve the organic waste disposal reduction targets and establishes an additional target that not less than 20 percent of currently disposed edible food is recovered for human consumption by 2025. CalRecycle, in consultation with CARB, is responsible for implementation of regulations to achieve these targets. SB 1383 authorizes local jurisdictions to charge and collect fees to recover the local jurisdiction's costs incurred in complying with the regulations. It also requires CalRecycle, in consultation with CARB, to analyze the progress that the waste sector, State government, and local governments have made in achieving the specified targets for reducing organic waste in landfills no later than July 1, 2020. Depending on the outcome of that analysis, CalRecycle is authorized to amend the regulations to include incentives or additional requirements.

Assembly Bill 341

AB 341 established a State policy goal that no less than 75 percent of solid waste generated be source reduced, recycled, or composted by 2020. Additionally, this law required CalRecycle to provide a report to the Legislature that recommends strategies to achieve the policy goal by January 1, 2014. AB 341 builds on the existing AB 939 requirement that every jurisdiction divert at least 50 percent of its waste. The bill also mandates local jurisdictions to implement commercial recycling by July 1, 2012. AB 341 requires any business (including schools and government facilities) that generates 4 cy or more of waste per week, and multifamily buildings with five or more units to arrange for recycling services.

City of Redondo Beach Local Policies and Regulations

Redondo Beach General Plan Solid Waste Management and Recycling Element

Objective 7.2: Increase the range and amount of solid waste that is recycled throughout the community, in accordance with all applicable state and local requirements, while achieving the resultant environmental and financial benefits and advantages of such activities.

Policy 7.2.3 The City of Redondo Beach (principally through the Department of Public Works) shall continue to encourage, support, and monitor the efforts and activities of the City's Environmental and Utilities Commission relative to integrated waste management activities. This body was appointed by the City Council to develop and implement the City of Redondo Beach Solid Waste Management Plan, as mandated by the State Legislature in Assembly Bill 939.

Policy 7.2.4 In the interim, the City should continue to proactively encourage, engender, and monitor its existing "curbside" recycling plan, neighborhood and group recycling plans and efforts, recycling by larger property owners and commercial and industrial businesses to increase the amount of participation and range of materials that are presently being recycled.

Policy 7.2.5 The City of Redondo Beach shall, as feasible and appropriate, require that all new or remodeled multi-family residential, commercial, and industrial developments develop and submit a formal "recycling plan," designating where and through which means materials will be stored for recycling purposes. The City Department of Public Works shall assist the City Community Development Department in reviewing these plans.

Redondo Beach Municipal Code

The RBMC includes several provisions regarding the city's solid waste generation and disposal.

Section 5-2.704 – Submission of a Hazardous Waste Management Plan. Requires an applicant for a demolition permit to submit a waste management plan for City approval. The waste management plan must show that at least 50

percent of all construction and demolition material generated by the project will be diverted or that an exemption has been approved. Of the 50 percent diversion rate, no more than 25 percent can be achieved through the recycling or reuse of inert materials unless the applicant can demonstrate that there are not sufficient structural materials for recycling or that a 25 percent diversion of total waste through non-inert materials is not feasible.

Section 9-12.502 – Standards for Utilities. Requires all new and replacement water supply and sanitary sewage systems be designed and located to avoid or eliminate impairment or contamination to onsite waste disposal systems during flooding.

3.15.3.3 Impact Assessment Methodology – Solid Waste Management Services

Thresholds for Determining Significance

The following thresholds of significance are based on Appendix G of the 2020 CEQA Guidelines. For purposes of this EIR, implementation of the proposed Project may have a significant adverse impact on solid waste if:

a) The project 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; and/or

b) The project would not comply with Federal, State, and local management and reduction statutes and regulations related to solid waste.

Methodology

The proposed Project was evaluated for impacts to solid waste facilities based on data published in the County of Los Angeles Countywide Integrated Waste Management Plan 2018 Annual Report and personal communication with the Redondo Beach Department of Public Works and Athens Services. Based on these sources, this analysis assesses the existing capacity of landfills that serve Athens Services and the City of Redondo Beach, any planned improvements to or changes to landfill capacity and projected increases in solid waste generation associated with land use changes anticipated to occur by 2030.

Impacts to solid waste disposal would be considered a significant impact if solid waste generated by the proposed Project exceeds the capacity of landfills and other solid waste facilities where

such waste would be disposed or if the proposed Project would adversely affect the achievement of State or local diversion requirements.

3.15.3.4 Project Impacts and Mitigation Measures – Solid Waste Management Services

Impact Description (UT-5)

a) The project 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.

UT-5 The implementation of the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would not result in the generation of solid waste during construction or operation that would exceed the existing capacity of existing landfills serving Redondo Beach. Therefore, impacts would be *less than significant.*

Construction

As described in Section 2.5.1.6, *Construction Activities,* the proposed Project would involve the demolition of the existing Beach Cities Health Center and northern surface parking lot during Phase 1 construction and the existing above ground parking garage and Phase 1 parking lot during Phase 2 construction. These demolition activities would result in the generation of substantial amounts of concrete and asphalt as well as other debris including structural steel, wood, glass, flooring, and utility material such as pipes and cables. The proposed construction activities would generate a variety of scraps and wastes, with the majority of recyclables being wood waste, drywall, metal, paper, and cardboard. The proposed Project would comply with the Redondo BeaConstruction and Demolition Ordinance, including submittal of a waste management plan that would divert at least 50 percent of materials generated during construction and demolition from landfills. The construction and demolition waste would be delivered to certified construction and demolition waste processors within the region where it would be recycled, as feasible. The Countywide Integrated Waste Management Plan 2018 Annual Report concludes that there is current capacity of 57.72 million tons or 46.17 million cy available throughout the County for the disposal of inert waste. Additionally, the City of Redondo Beach is served by Victorville Sanitary Landfill in San Bernardino County, which also receives construction and demolition debris waste and has a current capacity of 55,061,069 tons as of the end of 2016 (County of San Bernardino 2018). The C&D waste associated with the proposed Project, including approximately 65,250 tons

of demolition debris (e.g., asphalt and construction) would represent a very small percentage of the inert waste disposal capacity in the region. Therefore, the proposed Project would not create a need for additional solid waste disposal facilities to adequately handle Project construction-generated inert waste and impacts would be *less than significant.*

Operations

The proposed Project would generate municipal solid waste that would be typical of those generated by a mixed-use project. The proposed Project would result in a minor increase in municipal solid waste generation relative to existing conditions. To determine if there would be sufficient landfill capacity to accommodate solid waste generated by the proposed Project, solid waste generation was estimated based on the number of residential units and projected employees for each land use type. The estimated potential increase in solid waste generation is approximately 663.1 tons per year (see Table 3.15-16) (CalRecycle 2015). Assuming the existing Athens Services diversion rate of 75 percent, this would result in up to 497.38 tons per year of waste that would need to be disposed in one or both landfills serving the City of Redondo Beach.

Table 3.15-16. Estimated Solid Waste Generated by the Proposed Project

Proposed Uses	Size	Solid Waste Generation Rate	Solid Waste (tons/year)
Assisted Living and Memory Care	217 units	0.87 tons/unit/year	188.8
Caregiver and Medical Technicians	53 employees	2.92 tons/employee/year	154.7
Services	108 employees	2.31 tons/employee/year	249.5
Restaurant	24 employees	2.92 tons/employee/year	70.1
Total			**663.1**

Notes: Service/administrative uses were combined and waste generation rates were calculated using the most conservative Services generation rate of 2.31 tons/employee/year. Management, Administrative, support, and social services uses generate 1.44 tons/employee/year of solid waste.
Source: CalRecycle 2015.

As described in Section 3.15.3.1, *Environmental Setting – Solid Waste Management Services*, five solid waste disposal facilities currently serve the Redondo Beach, including four landfills and one refuse-to-energy facilities (refer to Table 3.15-14). The combined remaining capacity of the landfills is 111,062,464 tons (refer to Table 3.15-14; (County of Los Angeles Department of Public Works 2019; County of San Bernardino 2018). The combined maximum permitted daily capacity of these facilities is 20,740 tons, although only 10,013 tons are disposed in these facilities daily (48 percent of capacity). Therefore, the projected 663.1 tons per year of solid waste (approximately 1.8 tpd) would constitute 1 percent of the capacity of existing solid waste facilities, would therefore not exceed the existing capacity of solid waste facilities.

As explained above, the City of Redondo Beach has achieved significant waste reduction targets and strives for additional reductions in solid waste. Through its contact with Athens Services, the City of Redondo Beach has achieved a diversion rate of 75 percent. Under the proposed Project, the City of Redondo Beach would continue to implement to waste diversion strategies, thereby reducing expected waste generation from the proposed Project. Given the existing sufficient capacity of solid waste facilities and the City of Redondo Beach's continued efforts to reduce waste generation, this impact would be *less than significant*.

Impact Description (UT-6)

b) The project would not comply with Federal, State, and local management and reduction statutes and regulations related to solid waste.

UT-6 The proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program – would not result in generation of solid waste that would conflict with Federal, State, and local statutes and regulations related to solid waste. Due to existing local programs implementing State laws for diversion, would be *no impact*.

As described in Impact U-5, the proposed Project would not conflict with the goals or requirements of AB 939, AB 341, Redondo Beach General Plan Solid Waste Management and Recycling Element, or the RBMC. As discussed in UT-5, the City of Redondo Beach has already achieved a diversion rate of 75 percent through its contract with Athens Services that is in excess of the requirements of AB 939 and AB 341 to achieve a 50 percent diversion by 2020. The City of Redondo Beach remains committed to continuing its existing waste reduction programs and minimization efforts, including curbside recycling, multi-family centralized recycling and commercial recycling, school recycling programs, and backyard and worm composting.

BCHD would comply with the Construction and Demolition Ordinance (RBMC Section 5-2.704) by submitting a waste management plan to the City of Redondo Beach and diverting at least 50 percent of construction and demolition debris from landfills. Additionally, proposed Project operations would include recyclable containers/bins that would be provided on-site to ensure that solid waste associated with the proposed Project would be recycled or reused to the greatest extent possible. Therefore, the proposed Project would comply with applicable State and local statutes and regulations related to solid waste, and there would be *no impact*.

Cumulative Impacts – Solid Waste Management Services

The operation of the proposed Project would contribute to cumulative solid waste generation that is sent to regional landfills and solid waste disposal facilities associated with future growth within the City of Redondo Beach and the region. As shown in Table 3.15-14, the combined maximum solid waste accepted daily throughput of the two solid waste facilities serving the City of Redondo Beach is 8,000 tons of solid waste per day, while the average daily amount disposed is 5,466 tons per day, resulting in an excess daily capacity of 2,534 tons of solid waste per day (refer to Table 3.15-14).

The projected 663.1 tons per year of solid waste (approximately 1.8 tpd) that would be generated following the completion of the proposed Project would represent a negligible increase, less than 1 percent, of the total daily permitted capacity of the two solid waste facilities that to serve the City of Redondo Beach, and would not contribute to a cumulative increase in waste disposal that would exceed the capacity of a landfill. Therefore, this additional waste would not result in a considerable contribution to cumulative impacts associated with landfill capacity. Additionally, the County periodically addresses landfill capacity through the preparation of Annual Reports. The preparation of each Annual Report provides sufficient lead time (15 years) to address potential future shortfalls in landfill capacity. Compliance of the proposed Project and future development projects with findings and recommendations of these annual reports and regulatory requirements that promote diversion of solid waste, such as the California Integrated Waste Management Act, would also assist in ensuring that solid waste facilities have adequate capacity to serve solid waste generation on a cumulative basis. Therefore, the proposed Project *would not result in a substantial contribution to cumulative impacts* on solid waste facilities.