

## 4.14 UTILITIES AND SERVICE SYSTEMS

This section analyzes the proposed project’s potential impacts to the City’s water supply, wastewater conveyance infrastructure system, and solid waste management system. Issues pertaining to drainage control facilities are discussed in Section 4.8, *Hydrology and Water Quality*. Stormwater impacts were found to be less than significant in the Initial Study and require no further analysis.

### 4.14.1 Setting

#### a. Water Supply.

Water Sources, Supply, and Demand. The Goleta Water District (GWD) is the water purveyor for the City of Goleta. The GWD service area is located in the South Coast portion of Santa Barbara County with its western border adjacent to El Capitan State Park, its northern border along the foothills of the Santa Ynez Mountains and the Los Padres National Forest, the City of Santa Barbara to the east, and the Pacific Ocean to the south. The service area encompasses approximately 29,000 acres and includes approximately 86,950 residents. GWD includes the City of Goleta, the University of California, Santa Barbara, and Santa Barbara Municipal Airport as well as other unincorporated areas of Santa Barbara County.

In November 2011, the GWD adopted its most recent Urban Water Management Plan (UWMP). As discussed in the UWMP, the GWD draws its existing water supplies from four primary sources: Lake Cachuma surface water, the State Water Project, the Goleta Groundwater Basin, and recycled water from wastewater treatment. Table 4.14-1 shows current water supply from each of these sources for the City and compares overall water supplies to current demand. Currently, the GWD has a surplus of 3,070 acre-feet per year (AFY).

**Table 4.14-1  
 Current Water Supply and Demand  
 for the Goleta Water District**

Current Conditions	Amount (AFY)
Current Demand	13,402 <sup>1</sup>
Supply Sources <sup>2</sup>	
Cachuma Potable & GWC	9,322
State Water	3,800
Groundwater	2,350
Recycled Water	1,000 <sup>3</sup>
Total Supply	16,472
<b>Current Surplus (Deficit)</b>	<b>3,070</b>

<sup>1</sup> Goleta Water District. June 2013. *Technical Report on Optimizing the Goleta Water District Conservation Program*. Prepared by Kennedy/Jenks Consultants.

<sup>2</sup> Goleta Water District. 2010 *Urban Water Management Plan Update*. November 2011. (Table 3-1) Prepared by Kennedy/Jenks Consultants.

<sup>3</sup> The Goleta Water District’s supply of recycled water is approximately 1,000 AFY, varying seasonally between 850 AFY and 1,100 AFY (Brooke Welch, Senior Water Resource Analyst, Goleta Water District, personal communication, May 17, 2013).



The GWD receives recycled water from the Goleta Sanitary District (GSD), a separate agency that operates the only water recycling plant in the area and treats 3 million gallons per day of wastewater (Kathleen Werner, Technical Services and Laboratory Supervisor, Goleta Sanitary District, personal communication, May 17, 2013). Although the water recycling plant produces approximately 3,360 AFY, it is currently only distributing approximately 1,000 AFY, as shown in Table 4.14-1. This difference is due to limited storage capacity at a reservoir at the water recycling plant (Brooke Welch, Senior Water Resource Analyst, Goleta Water District, personal communication, May 17, 2013). Seasonally, the amount of delivered recycled water varies between 850 AFY and 1,100 AFY.

Recycled wastewater, distributed by GWD, has gone through tertiary treatment, including the maximum three-levels of wastewater treatment, and contains no live bacterium. This is the same level of water quality treatment that is required by the National Pollutant Discharge Elimination System (NPDES) permit for discharge as surface water, and is considered safe for exposure, but slightly below drinking water standards. Recycled water is approved for use as irrigation for landscaping, which allows the water purveyor to conserve potable water (i.e., meeting drinking water standards) supplies.

Current local GWD customers of recycled wastewater for landscape irrigation include the University of California, Santa Barbara, the Camino Real Marketplace, golf courses in the City, and multi-family residential properties in the City. Near the project site, the GWD Recycled Water System includes a 16-inch recycled water pipeline that runs beneath Hollister Avenue south of the project site, and a 6-inch connecting line that extends north on Glen Annie Road adjacent to the project site to the east. The 6-inch line currently provides a landscape irrigation water source for the adjacent Pacific Glen multi-family residential units directly to the east.

Table 4.14-2 shows GWD’s projections of water supply from all sources and of water demand in the year 2030.

**Table 4.14-2  
 Future Projected Water Supply and Demand  
 for the Goleta Water District**

<b>2030 Forecast</b>	<b>Average Conditions (AFY)</b>
Future Demand	16,141 <sup>1</sup>
Supply Sources <sup>2</sup>	
Cachuma Potable & GWC	9,322
State Water	3,800
Groundwater	2,350
Recycled Water	1,000 <sup>3</sup>
<b>Total Supply</b>	<b>16,472</b>
<b>Forecast Surplus</b>	<b>331</b>

<sup>1</sup> Goleta Water District, 2010 Urban Water Management Plan Update, November 2011. (Table 6-6: Supply and Demands Normal Water Years – Moderate Estimate of Demands)

<sup>2</sup> Goleta Water District, 2010 Urban Water Management Plan Update, November 2011. (Tables 3-1 and 6-6).

<sup>3</sup> Brooke Welch, Goleta Water District, personal communication, May 2013.



GWD sources are forecasted to yield a total water supply of 16,472 AFY in the year 2030 and water demand is forecasted to be 16,141 AFY. Therefore, GWD would experience a surplus of 311 AFY.

GWD's rights to groundwater drawn from the Goleta Groundwater Basin (Basin) were adjudicated through a court case in 1985 entitled *Wright v. Goleta Water District* (*Wright v. Goleta Water Dist.* (1985) 174 Cal. App.3d74.). The Wright Judgment gave GWD the right to pump up to 2,000 AFY from the Basin in addition to the right to surplus waters, injected water, return flows, and rights transferred from private pumpers, identified as Exchange Service and Augmented Service. Based on the GWD's reported amounts of these Exchange and Augmented Services, it has conservatively reported an entitlement of 2,350 AFY from the Basin. The Wright Judgment also gave GWD the right to inject excess surface water supplies into the Basin to recharge the Basin and replenish groundwater supplies.

In addition to its fixed adjudicated allotment, GWD safeguards for less-than-normal rainfall years by storing excess water runoff during high-rainfall-years, which helps to maintain its supplies during potential drought conditions. Excess surface water (e.g., from Cachuma Project "spill") during high rainfall years is injected into the Basin as "recharge" through GWD maintained injection wells. The injected recharge volumes are then available to GWD in the future, providing a variable increase in the annual allotment that can be tapped, as needed, also known as "banking." Unexercised groundwater rights at the end of a year revert to a stored water right in the Basin. As of 2009, the GWD Groundwater Management Plan (2010) reported that GWD storage in the Basin was 43,253 acre-feet.

Demand for GWD water is currently 13,402 AFY and, according to GWD's 2011 Water Supply Management Plan, demand is expected to rise to 16,683 AFY by the year 2030. At that time, a shortfall of 211 AFY is projected. This shortfall could be eliminated by making use of GWD's 2,000 AFY unused capacity for recycled water in the Basin as new pipelines are installed and new customers are identified.

GWD Water Emergency and Applicability to Proposed Project. On September 9, 2014, the GWD adopted Resolution 2014-31, declaring a Stage Two Water Shortage Emergency and Resolution 2014-32, directing the denial of applications for new and additional water service connections effective October 1, 2014. These actions implement the GWD's Safe Water Supplies Ordinance (SAFE) during the drought conditions of 2014. This temporary restriction does not change the long-term adequacy of water supplies as provided in the GWD's 2010 UWMP. The Resolution provides categories of exemption for specific property owners and projects. An exemption for "Parties with an Entitlement Based on an Existing Water Agreement with the District". This exemption applies to property owners who have a valid, executed agreement with the GWD that entitles them to water service. Such property owners are treated by the GWD, for water purposes, as having an existing water allocation. Since property owners with such agreements are treated by the GWD as not requiring an additional water allocation under the SAFE Ordinance, they are not subject to Resolution 2014-31, prohibiting new and additional service connections. This exemption applies to the property on which the Cortona Apartment Project is proposed as the property has an entitlement based on an existing water agreement.

In 1986, the GWD entered into an agreement with Coromar, a mutual water company that owned and operated a water production, treatment, storage and distribution system to serve water to parcels of land, including the project parcel. (This agreement is on file with the City and incorporated by reference). The GWD determined it was in the best interest of GWD to manage all sources of water within its boundaries, including the Coromar system. To implement this determination, the GWD entered into the 1986 transfer agreement to operate and manage the Coromar system and to provide GWD water service for all parcels served by Coromar, including the project site. Due to this agreement,



the proposed project is exempt from the GWD 2014-32 Resolution to deny applications for new water service connections. The permittee submitted a New Water Service Application to GWD and was issued a Preliminary Conditions Letter on October 16, 2014, on file with the City. This letter states that the project property is entitled to the amount of water required for the proposed project that the GWD will provide water connection upon request.

**b. Wastewater.** The Goleta West Sanitary District (GWSD) provides sewer service in the project area via its system of sewer mains that ultimately connect to GSD's main treatment plant at 1 William Moffett Place next to the Santa Barbara Municipal Airport. Treatment of wastewater collected by GWSD is provided through a contract with the GSD. The GSD treatment plant has a capacity of 9.7 million gallons per day (based on average daily flow) but is currently limited to a permitted discharge of 7.64 million gallons per day pursuant to a National Pollutant Discharge Elimination System (NPDES) permit issued by the US Environmental Protection Agency (EPA) in concurrence with the States' Central Coast Regional Water Quality Control Board (CCRWQCB). The GWSD is allocated 40.78 percent of the capacity at the sewage treatment plant, which equates to about 3.12 million gallons per day (mgd). The GWSD currently generates approximately 1.71 mgd of sewage that is treated at the GSD plant, leaving about 1.41 mgd of remaining capacity in the GWSD's existing system.

The GWSD and the GSD would provide wastewater collection and treatment, respectively, for the project site.

Wastewater Collection. The GWSD owns and operates sewer collection infrastructure serving approximately 6,000 customer accounts in its service area. The average annual flow of wastewater through GWSD's collection system is 1.53 million gallons per day (mgd) (Mark Nation, General Manager/Superintendent, Goleta West Sanitary District, personal communications, May 16, 2013). The system includes approximately 62 linear miles of pipeline, consisting of a series of lateral sewer pipelines that connect lines from individual properties to a sewer mainline, which connects to a trunk line.

Existing wastewater collection lines in the vicinity of the project site include main lines that are at least 8" in diameter beneath Cortona Drive and Hollister Avenue (Mark Nation, General Manager/Superintendent, Goleta West Sanitary District, personal communications, May 16, 2013). These are public lines, to which the project site's privately maintained collector system would connect. Along Los Carneros Road from Hollister Avenue toward Isla Vista, as wastewater is predominantly gravity-fed to the GWSD pump house located on the UCSB campus, the wastewater conveyance pipes expand in size to 24". Sewage is pumped from there to the GSD's main treatment plant.

Wastewater Treatment. Under contract with GWSD, the GSD provides treatment of wastewater at the Goleta Wastewater Treatment Plan (GWWTP). The GWWTP has a design capacity of 9.7 million gallons per day (mgd), based on an average daily flow rate. However, the discharge is restricted under the facility's National Pollution Discharge Elimination System (NPDES) permit (a Clean Water Act Requirement), to a daily dry weather discharge of 7.64 mgd (RWQCB, 2010). This permit can be renewed regularly to reconsider discharge needs of the facility. It was last renewed in 2010 and will be reconsidered again in 2015.

GSD is currently undergoing an upgrade of its treatment facilities from a current partial secondary blended process to full secondary treatment. The utility expects to complete this upgrade and connect new structures to the existing treatment plant by the end of 2013 (Kathleen Werner, Technical Services and Laboratory Supervisor, Goleta Sanitary District, personal communication, May 17, 2013). The



upgrade includes new construction of a second biofilter, two secondary sedimentation tanks, an aeration basin, solids-handling structures and a shower and locker room building. Some of the existing structures are being refurbished and updated, including the headworks, an odor reduction tower, and emergency generators. New equipment will include blowers, electric dredge, and a mechanical solids thickener. Finally, one of the existing stabilization basins will be converted into an equalization basin. The upgrade will allow the plant to increase its permitted discharge rate when construction is completed.

At the present time the plant's treatment system consists of primary settling, biofiltration, aeration, secondary clarification, chlorine disinfection, and dechlorination. Wastewater flows greater than 4.38 million gallons per day (MGD) receive primary treatment only and are blended with treated secondary wastewater prior to disinfection and discharge to the ocean. Treated wastewater is discharged to the Pacific Ocean through a diffuser 5,912 feet offshore at a depth of approximately 87 feet. When the treatment plant upgrades are completed the plant will be able to discharge effluent that has been treated to full secondary standards. The GSD treatment also has capacity to treat wastewater to the tertiary standards required for recycled water use.

#### **b. Solid Waste.**

Solid Waste Generation and Collection. Solid waste collection services in Goleta are provided by MarBorg Industries. All nonhazardous solid waste in the City and the surrounding South Coast area is handled at two local facilities: the South Coast Recycling and Transfer Station (SCRTS) and Tajiguas Landfill. Both sites are owned and operated by the Santa Barbara County Public Works Department, Resource Recovery and Waste Management Division.

The annual per capita residential waste generation in Goleta is estimated at 0.95 tons per person. According to the Goleta General Plan, the City averages about 2,400 tons each month, which is approximately 8 percent of the solid waste that goes to the Tajiguas Landfill. Although California's diversion rates have increased from 10 percent in 1989 to over 50 percent today, annual per capita waste generation rates for solid waste are still increasing. Some of this may be due to personal consumption and increases in construction debris resulting from an increase in the State's growth rate.

Tajiguas Landfill. Solid waste generated within Goleta is disposed of at the Tajiguas Landfill (Tajiguas), located approximately 26 miles west of Santa Barbara. Tajiguas is one of five landfills currently operating in the County. Tajiguas's total permitted operation area is 357 acres, with an approved and permitted waste disposal footprint of 118 acres comprised of both lined and unlined areas (CalRecycle, 2013). Waste filling operations are currently being conducted in both the unlined and the lined lateral expansion areas. Santa Barbara County Environmental Health Services permits Tajiguas to accept up to 1,500 tons of municipal solid waste and yard waste per day.

Based on current waste disposal rates, the landfill would reach permitted capacity in approximately 2023. The currently permitted landfill disposal capacity is 23.3 million cubic yards of waste, of which 71 percent was already utilized as of 2009. The landfill is classified by the State Water Resources Control Board as a Class III waste management unit, approved for discharge of Nonhazardous Municipal Solid Waste. Municipal solid waste currently delivered to Tajiguas is generated by the residents and businesses of City of Santa Barbara, the City of Goleta, the unincorporated areas of southern Santa Barbara County, and the Santa Ynez and Cuyama Valleys.



Waste Diversion and Recycling. In February 1992, the Santa Barbara County Board of Supervisors adopted the County's Source Reduction and Recycling Element (SRRE). The goal of the SRRE is to reduce the amount of solid waste entering landfills by implementing, in order of priority: source reduction, recycling and composting, and environmental transformation (incineration, pyrolysis, or biological conversion). The final option is land disposal of waste.

The City of Goleta participates in recycling programs aimed at achieving a minimum 50 percent diversion rate of solid waste. Based on data from 2009, the diversion rate for Santa Barbara County including the City of Goleta, was most recently identified as 73 percent (County of Santa Barbara Public Works Department, 2013). Green waste collected by City waste haulers is cleaned and ground into mulch, which is then marketed. Recyclables delivered to SCRIS are delivered to Gold Coast Recycling for sorting and marketing. In addition, a minimum of 65 percent of all construction wastes must be diverted.

### **c. Regulatory Framework.**

#### Water Supply.

*The Subdivision Map Act, Government Code Sections 66410 et seq.* California Government Code Sections 66410 et seq. (referred to as the Subdivision Map Act) set forth general provisions, procedures, and requirements for the division of land including the provision of public services.

*Recycled Water Regulations.* The EPA, State Water Resources Control Board (SWRCB), Regional Water Quality Control Boards (RWQCB), and California Department of Health Services (CDHS) all have a role in regulating the use of recycled water in the State of California. The SWRCB has adopted Resolution No 77-1 (Policy with Respect to Water Reclamation in California), which empowers the State Board and Regional Boards to encourage and consider funding for water reclamation projects that do not impair water rights or beneficial in-stream uses. The CDHS determines how recycled water may be used in California, and designates the level of treatment required for each of these permitted uses (Title 22, California Code of Regulations).

*Urban Water Management Planning Act (California Water Code, Division 6, Part 2.6, Section 10610 et seq.).* The Urban Water Management Planning Act was developed to address concerns regarding potential water supply shortages throughout California. It requires information on water supply reliability and water use efficiency measures. Urban water suppliers are required to develop and implement UWMPs to describe their efforts to promote efficient use and management of water resources.

*Title 22.* The California Water Code requires the California Department of Public Health (CDPH) to establish water reclamation criteria. In 1975 the CDPH prepared Title 22 regulations (22 C.C.R. §§ 60303 et seq.) to satisfy this requirement. Title 22 regulates production and use of reclaimed water in California by establishing three categories of reclaimed water: primary effluent, secondary effluent, and tertiary effluent. In addition to defining reclaimed water uses, Title 22 also defines requirements for sampling and analysis of effluent and specifies design requirements for treatment facilities.

*Senate Bill (SB) 610.* SB 610 (Water Code §§ 10910 et seq.) was adopted in 2001 and reflects the growing awareness of the need to incorporate water supply and demand analysis at the earliest possible



stage in the land use planning process. SB 610 amended the Urban Water Management Planning Act (Water Code §§ 10610 *et seq.*) to add Section 10910 *et seq.*

Water supply planning under SB 610 requires reviewing and identifying adequate available water supplies necessary to meet the demand generated by a project, as well as the cumulative demand for the general region over the next 20 years, under a broad range of water conditions.

This information is typically found in the current UWMP for the project area. SB 610 requires the identification of the public water supplier. Under SB 610, a Water Supply Assessment (WSA) is needed only if a project exceeds thresholds of development identified, thereby relieving projects of less significance from the requirements of the bill (Water Code § 10910).

*City of Goleta Inland Zoning Ordinance.* Section 35-317.7(1)(d) of Article 3, Chapter 35 of the Municipal Code (the City of Goleta Inland Zoning Ordinance) includes a requirement for finding of adequate public services to serve new developments.

*Goleta Water District Ordinance No. 91-01 The SAFE Water Supplies Ordinance of 1991.* The Safe Water Supplies Ordinance (SAFE) was approved by GWD voters in 1991 and amended in 1994. SAFE sets certain restrictions on GWD use of groundwater, including the creation of a “Drought Buffer” of water that is stored in the Central Basin, which may be pumped and distributed by the GWD to existing customers only in the event that a drought causes a reduction in the District’s annual deliveries from Lake Cachuma. The Drought Buffer supplies may not be used as a source of supplemental water supply to serve new or additional demands for District water. SAFE also restricts deliveries to new developments by limiting the release of water to new customers to one percent of its total potable water supply. A determination of available water allocation for new uses is made on an annual basis.

The SAFE Ordinance also continued an existing prohibition on new service connections until water supplies for existing customers were secured. Those conditions were met in 1997. When new releases are authorized they must be offset by increases to the Drought Buffer equivalent to two-thirds of the amount of the water supplied to new customers. A determination of available water allocation for new uses is made on an annual basis.

*Goleta Water District Water Conservation Plan (2010).* The GWD has adopted an interim Water Conservation Plan (2010) requiring implementation of Best Management Practices (BMPs) to conserve water, which would reduce demand on the GWD’s water treatment plant capacity. Proposed developments are required to incorporate feasible BMPs into its water system design, including the use of water conserving fixtures and water efficient landscape and irrigation.

#### Wastewater Treatment.

*The Subdivision Map Act, Government Code Section 66410 et seq.* Division 2 of the Government Code of the State of California (referred to as the Subdivision Map Act) sets forth general provisions, procedures, and requirements for the division of land including the provision of public services.

*City of Goleta Inland Zoning Ordinance.* Section 35-317.7(1)(d) of Article 3, Chapter 35 of the Municipal Code (the City of Goleta Inland Zoning Ordinance) includes a requirement for finding of adequate public services to serve new developments as a condition precedent to project approval.



### Solid Waste.

*The Subdivision Map Act, Government Code Sections 66410 et seq.* California Government Code Sections 66410 et seq. (referred to as the Subdivision Map Act) set forth general provisions, procedures, and requirements for the division of land including the provision of public services.

*California Integrated Waste Management Act of 1989 (AB 939).* This law was enacted to reduce, recycle, and reuse solid waste generated in the State to the maximum extent feasible (Pub. Res. Code §§ 40050-40063). Specifically, the Act required cities and counties to adopt a Source Reduction and Recycling Element of their Waste Management Plans to describe actions to be implemented to achieve waste reduction goals (Pub. Res. Code § 41750).

*California Solid Waste Reuse and Recycling Access Act of 1991 (AB 1327).* California Solid Waste Reuse and Recycling Access Act of 1991, as amended, requires each local jurisdiction to adopt an ordinance requiring commercial, industrial, or institutional building, marina, or residential buildings having five or more living units to provide an adequate storage area for the collection and removal of recyclable materials (Pub. Res. Code Chapter 18). The sizes of these storage areas are to be determined by the appropriate jurisdictions' ordinance. If no such ordinance exists with the jurisdiction, the CalRecycle model ordinance shall take effect (Pub. Res. Code § 42911).

*Construction and Demolition Waste Materials Diversion Requirements (SB 1374).* Construction and Demolition Waste Materials Diversion Requirements passed in 2002, added Section 42912 to the California Public Resources Code. SB 1374 dictates that jurisdictions include in their annual AB 939 report a summary of the progress made in diverting construction and demolition waste (Pub. Res. Code § 42912). The legislation also requires that CalRecycle adopt a model ordinance for diverting 50 to 75 percent of all construction and demolition waste from landfills (Pub. Res. Code § 42912).

*City of Goleta Municipal Code Chapter 8.10 (Solid Waste Services).* Chapter 8.10 authorizes the City's Resource Recovery and Waste Management Division to make all necessary and reasonable rules and regulations, subject to the approval of the City Council, regarding all aspects of solid waste handling services as necessary for the effective and reasonable administration and enforcement of this chapter. In March 2013, the Chapter was amended to require any project involving the construction of new structures must divert from disposal at least 65 percent of all construction and demolition waste by weight regulates the collection and disposal of solid wastes.

*City of Goleta Inland Zoning Ordinance.* Section 35-317.7(1)(d) of Article 3, Chapter 35 of the Municipal Code (the City of Goleta Inland Zoning Ordinance) includes a requirement for finding of adequate public services to serve new developments.

## **4.14.2 Impact Analysis**

**a. Methodology and Significance Thresholds.** To analyze impacts to utilities, the anticipated development potential under the proposed project was compared to the available capacity of facilities that serve the project site.

Water Supply. The proposed project would have a significant effect on water supplies if demand associated with projected growth would result in any of the following conditions, as listed in Appendix G of the *State CEQA Guidelines*:





- *Require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.*
- *Fail to have sufficient water supplies available to serve the project from existing entitlements and resources, or require new or expanded entitlements.*

In addition, the City of Goleta's *Environmental Thresholds and Guidelines Manual* includes thresholds pertaining to groundwater supply for projects involving groundwater wells. The project does not involve groundwater wells and, therefore, these thresholds are not applicable.

To evaluate the proposed project's impacts on water supply, the water demand generated by future residents at the project site are estimated using water duty demand rates in the City's *Environmental Thresholds and Guidelines Manual*. For residential development at approximately 20 units/acre (the proposed project is at 20.4 units/acre), the duty demand factor is 0.23 AFY per unit. In addition to domestic consumption, project landscaping is estimated to consume approximately 0.04 AFY/1,000 SF.<sup>1</sup> Estimated water demand associated with the project is then compared to total water demand across the GWD service area. Lastly, the project's estimated water demand is compared to the projected increase in total water demand through the year 2035.

Wastewater. The City of Goleta's *Environmental Thresholds and Guidelines Manual* does not provide thresholds for impacts related to sewer service and wastewater treatment. The following thresholds are based on Appendix G of the *CEQA Guidelines*. The project would have a significant impact related to wastewater if it would result in any of the following conditions:

- *Exceed the wastewater treatment requirements of the applicable Regional Water Quality Control Board.*
- *Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.*
- *Result in a determination that the wastewater treatment provider does not have adequate capacity to serve projected demand in addition to existing commitments.*

The environmental impacts of the proposed project with respect to wastewater are determined based on the potential increase in wastewater generation from buildout of the proposed project and the capacity of existing and proposed wastewater treatment facility and infrastructure. Project-generated wastewater is estimated using GWSD's rate of 184 gallons/day (gpd) per equivalent residential unit (ERU). The project's estimated wastewater generation is then compared to the utility's existing sewer capacity and wastewater flow.

Solid Waste. The City of Goleta's *Environmental Thresholds and Guidelines Manual* provides both project-specific and cumulative thresholds for solid waste generation from discretionary development. A project would result in a significant impact on the City's landfill capacity if it generates more than 196 tons of solid waste per year, after a 50 percent reduction credit is given due to recycling efforts.

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<sup>1</sup> The Goleta Water District provided an average value of 0.15 AFY per dwelling unit based on the multi-family residential rate from the "Water Demand Factor Update Report" dated October 2009, prepared by City of Santa Barbara (Joelle Detlefsen-Fox, email dated 10/6/14). For the proposed project of 176 apartment units, this factor would result in a total demand of 26.4 AFY (176 Units x 0.15 AFY). The higher demand factors for the City's Environmental Thresholds and Guidelines Manual were used in order to provide a conservative estimate of water demand.



The generation of solid waste from construction of the proposed project is estimated based on a generation factor for residential construction of 4.38 pounds per square foot, derived from the U.S. EPA report *Characterization of Building-Related Construction and Demolition Debris in the United States*. The generation of solid waste from operation of the proposed project is calculated using the City’s *Environmental Thresholds and Guidelines Manual* estimate for multi-family residential developments: (2.65 people/unit) x (# of units) x (0.95 tons/year).

The City’s *Environmental Thresholds and Guidelines Manual* also provides a cumulative threshold for solid waste. Projects with a project specific impact as identified above (196 tons/year or more) are also considered to have a cumulatively significant contribution, as the project specific threshold of significance is based on a cumulative growth scenario. However, as landfill space is already extremely limited, any increase in solid waste of one percent or more of the estimated increase accounted for in the SRRE would be considered a less than significant but adverse contribution (Class III) to regional solid waste impacts. One percent of the SRRE projected increase in solid waste equates to 40.0 tons per year. To reduce adverse cumulative impacts and to be consistent with the SRRE, mitigation should be recommended for projects, which generate between 40 and 195 tons of solid waste.

**b. Project Impacts and Mitigation Measures.**

**Impact UTL-1** The proposed project would generate a net water demand of approximately 47.14 AFY. This level of demand is within the GWD’s current 3,070 AFY surplus. Therefore, impacts to water supply would be Class III, less than significant.

At present, the 8.8-gross acre project site is vacant and generates no water demand. Water service to the project site would be provided by the GWD. Based on the water demand factors discussed above, the proposed project’s domestic water demand and landscaping water demand are estimated at 40.48 AFY and 6.66 AFY, respectively. The calculations for project-generated water demand are shown in Table 4.14-3. The total water demand generated by the project would be 47.14 AFY (not including recycling and other water savings). This represents approximately 0.29 percent of the 16,472 AFY of water available from GWD to the year 2030 (not including unused recycled water).

**Table 4.14-3  
 Project-Generated Water Demand**

Proposed Use	Amount	Demand Rate	Projected Demand
Residential (at 20 units/acre)	176 units	0.23 AFY/unit	40.48 AFY
Landscaping	166,410 SF	0.04 AFY/1,000 SF	6.66 AFY
<b>Total</b>			<b>47.14 AFY</b>

Source: City of Goleta, City’s *Environmental Thresholds and Guidelines Manual*.

Water for domestic uses and landscaping on the project site could potentially be supplied by different sources. As discussed in the *Setting*, recycled water is available in Goleta for non-potable uses. If GWD extended an existing recycled water line along Hollister Avenue toward Cortona Drive in the future, the project site could connect to this line in order to use recycled water for landscaping. An ample supply of recycled water would be available for the project site given that a major user of recycled water in the



City (a golf course which has withdrawn approximately 100 AFY) will no longer receive recycled water in the future (Brooke Welch, Senior Water Resource Analyst, Goleta Water District, personal communication, May 17, 2013). Nevertheless, it is not currently anticipated that the project site would use recycled water.

The proposed project would generate demand for an estimated 47.14 AFY of water for domestic use, which represents 1.5 percent of GWD's current surplus of 3,070 AFY in water supply above current demand levels (GWD, 2011). Accordingly, the GWD currently has a sufficient water supply to provide potable water to the proposed project and project impacts to water supply would be less than significant. The GWD would issue a "Can and Will Serve" (CAWS) letter to confirm that adequate water supplies are available at the time a CAWS is sought by the permittee.

In accordance with GWD's Water Conservation Plan from 2010, the proposed project also would be required to incorporate feasible Best Management Practices (BMPs) into its water system design. Such practices include the use of water conserving fixtures and water efficient landscape and irrigation.

Pursuant to SB 610 (Water Code § 10910(c)(2)), preparation of a water supply assessment (WSA) also would be required if residential use on the project site would generate a water demand equivalent to the demand that would be generated by 500 residential units. According to the *Guidebook for Implementation of Senate Bill 610 and Senate Bill 221 (2001)* a single dwelling unit is estimated to consume approximately 0.5 AFY. A project containing 500 dwelling units would be expected to consume approximately 250 AFY. As shown on Table 4.14-3, the project's combined water demand is estimated to be approximately 47.1 AFY; therefore, the project would not meet the *equivalent water demand threshold* of SB 610, and a WSA is not required for the project.

**Mitigation Measures.** Impacts related to water supply would be less than significant; therefore, mitigation is not required.

**Residual Impact.** Impacts would be less than significant without mitigation since the proposed project's water demand is within the current GWD surplus; nevertheless, the following are recommended as conditions of approval to further reduce impacts on water supplies.

- **Outdoor Water Conservation.** Minimize outdoor water use through the following:
  - a. Use of native and/or drought tolerant species in the final landscaping;
  - b. Installation of drip irrigation or other water-conserving irrigation;
  - c. Grouping of plant material by water needs;
  - d. Limiting turf to less than 20% of the total landscaped area if proposed under the final landscape plan or use of artificial turf in place of living grass (this may exceed the 20% maximum);
  - e. No turf is allowed on slopes of over 4%;
  - f. Use of extensive mulching (2" minimum) in all landscaped areas to improve the water holding capacity of the soil by reducing evaporation and soil compaction;
  - g. Installation of soil moisture sensing devices to prevent unnecessary irrigation;
  - h. Use of only recycled water for landscape irrigation if the project site is connected to a recycled water line;
  - i. Use of plant materials that can withstand high salinity levels, if recycled water is used for irrigation; and

- j. Use of plant materials that are compatible with the Goleta climate pursuant to Sunset Western Garden Book’s Zone 24, published by Sunset Books, Inc., Revised and Updated 2001 edition.
- **Indoor Water Conservation.** Minimize indoor water use through the following:
  - a. Insulation of all hot water lines;
  - b. Installation of re-circulating, point-of-use, or on-demand water heaters;
  - c. Prohibition of self-regenerating water softening in all structures;
  - d. Use of lavatories and drinking fountains with self-closing valves; and
  - e. Installation of water sense specification toilets in each unit.

**Impact UTL-2 Wastewater generated by future residents on the project site would flow through GWSD’s conveyance system and into GSD’s wastewater treatment plant. Existing wastewater conveyance and treatment facilities have sufficient capacity to accommodate project-related flows and a Sewer Service Connection Permit would be necessary. Therefore, impacts would be Class III, less than significant.**

Future residents on the project site would generate wastewater that would feed into GWSD’s conveyance system and ultimately flow to GSD’s treatment plant. As discussed in the *Setting*, GWSD owns 40.78 percent of the capacity rights at the GSD treatment plant, which gives GWSD an allotment of 3.12 mgd of treatment capacity. GWSD currently collects approximately 1.71 mgd of sewage, and its system has a remaining allocated capacity of 1.41 mgd pursuant to its contract with GSD. Applying GWSD’s wastewater generation rate of 184 gallons/day (gpd) per equivalent residential unit (ERU), the proposed 176 housing units on-site would generate 32,384 gpd in effluent. Project-generated wastewater represents approximately one percent of the GWSD’s allocated capacity of 3.12 mgd. As shown in Table 4.14-4, the combination of existing wastewater flow in GWSD’s service area and project-generated flow would represent 55.8 percent of total allocated capacity. Thus, GWSD’s treatment plant would retain substantial treatment capacity after the addition of project-generated wastewater. Additionally, GWSD reports that the existing wastewater conveyance pipelines near the project site have sufficient capacity to accommodate project-related wastewater flows (Nation, 2013).

**Table 4.14-4  
 Existing + Project Wastewater Generation and Allocated Capacity**

<b>Wastewater Generation</b>	<b>Allocated Capacity</b>	<b>% of Capacity</b>
<u>Existing in GWSD Service Area</u> 1.71 mgd	-	54.8%
<u>Project</u> 0.03 mgd	-	1.0%
<u>Existing + Project</u> <b>1.74 mgd</b>	<b>3.12 mgd</b>	<b>55.8%</b>

Furthermore, in order for the project to connect to the wastewater system, payment of fees to reserve capacity and contribute to costs of plant upgrades would be required. A Sewer Service Connection Permit from the GWSD also would be necessary to ensure that the District’s excess capacity can be



utilized to serve this project (Nation, 2013). Although GWSD supplied a letter on November 9, 2009, confirming the availability of sewer capacity for the project site, this assurance only remained viable for one year. Because the project site was not connected to GWSD's sewer system within that period, a new District Sewer Service Connection Permit from GWSD would be required to ensure the adequacy of sewage disposal service for the proposed project. With the approval of this permit and payment of fees toward plant upgrades, the quantity of wastewater generated by the project would not exceed GWSD's sewage collection and treatment capacity. The project would have a less than significant impact on the availability and adequacy of sewage disposal service for the proposed project.

**Mitigation Measures.** After obtaining a District Sewer Service Connection Permit from GWSD and paying applicable fees, impacts related to wastewater would be less than significant; therefore, mitigation is not required.

**Residual Impact.** Impacts would be less than significant without mitigation.

**Impact UTL-3** **Although the proposed project would generate solid waste during construction, a plan would be required to recycle 65 percent of construction materials. Therefore, impacts would be Class III, less than significant.**

During the construction phase of development, a project can generate solid waste from the demolition of existing structures and the erection of new buildings. Since the project site is currently vacant, the proposed project would not generate solid waste from demolition of on-site structures. Nevertheless, construction of new residential structures would generate solid waste. The proposed structures on-site, including eight multi-family residential apartments, a clubhouse, and a maintenance building, would total 174,596 gross square feet. According to the U.S. EPA report *Characterization of Building-Related Construction and Demolition Debris in the United States*, residential construction has a solid waste generation factor of 4.38 pounds per square foot (U.S. EPA, 1998). Therefore, the proposed project would generate an estimated 764,730 pounds of debris (approximately 382 tons) from the construction of buildings. As described above under the Regulatory Framework, the City's Municipal Code was updated in March 2013 to increase the required diversion rate for construction and demolition waste. Pursuant to Chapter 8.10 of the Municipal Code, any project involving the construction of new structures must divert from disposal at least 65 percent of all construction and demolition waste by weight. To attain this diversion rate, the permittee would be required to submit a Pre-Construction Waste Reduction and Recycling Plan as part of the application for a building permit. By complying with the City's updated requirement for diversion of solid waste, construction of the proposed project would generate an estimated 133.7 tons of non-recyclable waste. Therefore, impacts would be less than significant.

**Mitigation Measure.** Impacts related to solid waste would be less than significant. No mitigation is necessary to further reduce impacts.

**Residual Impact.** Impacts would be less than significant without mitigation.



**Impact UTL-4** The proposed project would generate an estimated 119.6 tons of non-recyclable solid waste per year during operation. This amount does not exceed the City's project-specific threshold of 196 tons per year. Implementation of a Solid Waste Management Program would be required to implement waste diversion. Therefore, impacts would be Class III, *less than significant*.

As discussed in Section 4.14.3, *Methodology and Significance Thresholds*, the City's CEQA thresholds manual includes a formula to estimate solid waste generation from multi-family residential development. Using this formula (2.65 people/unit x 176 units x 0.95 tons/year), the proposed project would generate approximately 443.1 tons per year. According to the City's *Environmental Thresholds and Guidelines Manual*, the quantity of solid waste to be disposed of at landfills (non-recycled waste) is estimated at 50 percent of the total volume of solid waste generated. The non-recycled waste from the proposed project would therefore be estimated at 221.5 tons per year. This amount exceeds the City's project-specific threshold of 196 tons per year. Nevertheless, the diversion rate for Santa Barbara County including the City of Goleta was most recently identified as 73 percent, based on data from 2009 (County of Santa Barbara Public Works, 2013). Assuming that the proposed project would divert recyclable waste at this rate, 27 percent of the project's estimated 443.1 tons of solid waste per year would be disposed of at landfills. Thus, the project would generate an estimated 119.6 tons per year in non-recyclable waste. This amount would not exceed the City's project-specific threshold of 196 tons per year. To ensure that solid waste generation is minimized, the preparation and implementation of a Solid Waste Management Program (SWMP) would be required. The SWMP would include, but is not limited to, the provision of space and/or bins designated for recyclable material, a program to recycle green waste, and the purchasing of materials with recycled content for construction and operation of the project. The Planning and Environmental Review Director, or designee, would inspect the project site periodically for the first five (5) years after completion of project occupancy to verify compliance with the SWMP. Therefore, the proposed project would have a less than significant impact on solid waste disposal capacity at the Tajiguas Landfill.

**Mitigation Measures.** Mitigation is not required because impacts would be less than significant.

**Residual Impact.** Impacts would be less than significant without mitigation.

**c. Cumulative Impacts.**

**Water Supply.** Cumulative development in the City, including the proposed project, would add 1,425 residential units and more than 1.4 million square feet of commercial and industrial space (City of Goleta, Cumulative Project List, May 2013). Using conservative water demand rates for single-family residences, multi-family residences, and non-residential development, as identified in the City's *Environmental Thresholds and Guidelines Manual*, the total additional water demanded (should all pending projects in the City of Goleta be approved) is estimated at 1,181 AFY, as shown in Table 4.14-5.



**Table 4.14-5  
 Estimated Water Demand from Cumulative Projects in the City of Goleta**

<b>Land Use</b>	<b>Size</b>	<b>Demand Rate</b>	<b>Water Demand (AFY)</b>
Single-family residential	415 dwelling units	0.70 AFY/unit	291
Multi-family residential	834 dwelling units <sup>a</sup>	0.50 AFY/unit	417
Commercial	1,413,543 square feet	0.30 AFY/1,000 square feet <sup>b</sup>	424
Proposed Project	176 dwelling units		47
<b>Total</b>			<b>1,179</b>

<sup>a</sup> Includes 90-unit assisted living facility.

<sup>b</sup> The general commercial rate was conservatively applied to all non-residential development.

The total estimated water demand of 1,179 AFY would be approximately 38 percent of the current surplus of 3,070 AFY and 7 percent of the 16,472 AF of water available to the GWD annually through the year 2030 (not including GWD’s unused recycled water capacity or other potential sources). Therefore, the cumulative water supply impact associated with planned and pending development in Goleta would be less than significant.

As shown in Table 4.14-2 (page 4.14-2), GWD forecasts regional water demand to increase to about 16,141 AFY by the year 2030 based on SBCAG population growth estimates (GWD, UWMP, 2011). Therefore, there would be a surplus of 331 AFY. However, future water demand from cumulative growth plus the proposed project would exceed the forecasted surplus. This shortfall could be met by using the future supply of recycled water for irrigation and agriculture, thus making potable supplies available for municipal uses. In addition, the City has the ability to determine the actual amount of growth that it will allow if water supply becomes a limiting factor. For these reasons, it is anticipated that the GWD will continue to be able to meet future demands with available supplies and long-term cumulative impacts to water supplies would be less than significant.

Wastewater. As discussed above, cumulative development within the City of Goleta would add 1,425 residential units and more than 1.4 million square feet of commercial and industrial space, resulting in increased generation of wastewater. Assuming that wastewater generation is 90 percent of water demand, this development would generate about 0.947 million gallons of wastewater per day. This is about 67 percent of the 1.41 mgd of wastewater treatment capacity that GWSD maintains. Wastewater generated by cumulative development would therefore be within GWSD’s available capacity. In addition, ongoing upgrades to wastewater treatment facilities would improve treatment capacity. As discussed in Section 4.14.1, *Setting*, the utility expects to complete this upgrade and connect new structures to the existing treatment plant by the end of 2013. Two 5-year NPDES permit extensions will be granted given satisfactory progress made in completing the design and construction of the wastewater treatment facility upgrades to full secondary treatment standards. Until planned



upgrades are in place, wastewater treatment to serve the growing demand of the City would remain constrained. In order for the project and other related developments to connect to the wastewater system, payment of fees to reserve capacity and contribute to costs of plant upgrades would be required. With the payment of fees toward the construction of improvements to wastewater infrastructure, as discussed under Impact UTL-2, the proposed project would not contribute to a cumulative impact on wastewater infrastructure. Therefore, cumulative impacts would be less than significant.

Solid Waste. The project's solid waste generation, assuming 73 percent waste diversion as discussed under Impact UTL-4, is estimated at 119.6 tons/year. According to the City's *Environmental Thresholds and Guidelines Manual*, this level of solid waste generation is not considered a significant contribution to cumulative impacts. However, because solid waste generation exceeds 40 tons/year, it is considered an adverse contribution to cumulative impacts to solid waste facilities. With implementation of a required SWMP as discussed under Impact UTL-4, the project would have a less than significant contribution to cumulative solid waste impacts.

