

5.15 Utilities and Service Systems

5.15.1 INTRODUCTION

This section of the Supplemental EIR evaluates the potential effects on utilities and service systems from implementation of the proposed Project by identifying anticipated demand and existing and planned utility availability. This includes water supply and infrastructure, wastewater, drainage, and solid waste. Electric power, natural gas, telecommunications, and renewable energy resources are described in Section 5.3, *Energy*.

Water supply and infrastructure capacity information in this section is based on the following:

- *City of Santa Ana General Plan Update*
- *City of Santa Ana General Plan Update FEIR*
- *City of Santa Ana Municipal Code*
- *City of Santa Ana 2020 Urban Water Management Plan*
- *City of Santa Ana 2018 Storm Drain Master Plan*
- *Preliminary Geotechnical Investigation Report (Appendix G),*
- *Preliminary Hydrology Report (Appendix L),*
- *Preliminary Water Quality Management Plan (Appendix M),*
- *Water Supply Assessment (Appendix P),*
- *Sewer Analysis Report (Appendix Q),*
- *Storm Drain Master Plan Drainage Assessment (Appendix R)*

Because CEQA focuses on physical environmental effects, this section analyzes whether increases in demand for water, wastewater, stormwater drainage, and solid waste utilities that would result from the proposed Project would result in significant adverse physical environmental effects. For example, physical changes in the environment resulting from the construction of new facilities or an expansion of existing wastewater facilities could constitute a significant impact under CEQA.

5.15.2 WATER

5.15.2.1 WATER REGULATORY SETTING

Safe Drinking Water Act

The United States Environmental Protection Agency (U.S. EPA) administers the Safe Drinking Water Act, which is the primary federal law that regulates the quality of drinking water and establishes standards to protect public health and safety. The State Water Resources Control Board, Division of Drinking Water (DDW) implements the requirements of the Act and oversees public water system quality statewide. USEPA establishes legal drinking water standards for contaminants that could threaten public health.

California Urban Water Management Planning Act

Section 10610 of the California Water Code established the California Urban Water Management Planning Act (CUWMPA), requires urban water suppliers to initiate planning strategies to ensure an appropriate level of reliability in its water service. CUWMPA states that every urban water supplier that provides water to 3,000 or more customers, or that annually provides more than 3,000 acre-feet of water service, should make every effort to ensure the appropriate level of reliability in its water service to meet the needs of its various

categories of customers during normal, dry, and multiple-dry years. The CUWMPA describes the contents of UWMP's as well as methods for urban water suppliers to adopt and implement the plans. As described below, the City of Santa Ana has an updated 2015 UWMP that addresses water supply and demand through 2040.

Senate Bill 610

Senate Bill (SB) 610 requires public urban water suppliers with 3,000 or more service connections to identify existing and planned sources of water for planned developments of a certain size. It further requires the public water system to prepare a specified water supply assessment (WSA) for projects that meet the following criteria:

- a) A proposed residential development of more than 500 dwelling units;
- b) A proposed shopping center employing more than 1,000 persons or having more than 500,000 SF of floor space;
- c) A commercial office building employing more than 1,000 persons or having more than 250,000 SF of floor space;
- d) A hotel or motel, or both, with more than 500 rooms;
- e) An industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 SF of floor area; and
- f) A mixed-use project that includes one or more of the projects above.

The components of a WSA include existing water demand, future water demand by the project, and must ensure that water is available for the project during normal years, a single dry year, and multiple dry years during a 20-year future projection period. The WSA must also describe whether the project's water demand is accounted for in the water supplier's Urban Water Management Plan (UWMP) Supplies of water for future water supply must be documented in the WSA.

Senate Bill 221

SB 221 requires the local water provider to provide "written verification" of "sufficient water supplies" to serve the project. SB 221 applies only to residential projects of 500 units or more (infill or low-income or very-low-income housing subdivisions are exempt) and requires the land use planning agency to include as a condition of approval of a tentative map, parcel map, or development agreement a requirement that "sufficient water supply" be available. Sufficiency under SB 221 differs from SB 610 in that it is determined by considering the availability of water over the past 20 years; the applicability of any urban water shortage contingency analysis prepared per Water Code Section 10632; the reduction in water supply allocated to a specific use by an adopted ordinance; and the amount of water that can be reasonably relied upon from other water supply projects, such as conjunctive use, reclaimed water, water conservation, and water transfer. In most cases, the WSA prepared under SB 610 meets the requirement for proof of water supply under SB 221.

Senate Bill 1262

SB 1262, which amends Section 66473.7 of the Government Code and Section 10910 of the Water Code requires WSAs to include additional information regarding sustainable groundwater management if water supply for a project includes groundwater, including:

- Whether the department has identified the basin as being subject to critical conditions of overdraft pursuant to Section 12924.
- If a groundwater sustainability agency has adopted a groundwater sustainability plan or has an approved alternative, a copy of that alternative or plan.

As described below, the City obtains a majority of its water supply from the groundwater basin. Thus, this additional information is provided in the Project specific WSA (Appendix P, herein).

CALGreen Building Code

California Code of Regulations Title 24, Part 11, establishes the California Green Building Code or CALGreen. The CALGreen Code is updated every three years and sets forth water efficiency standards (i.e., maximum flow rates) for all new plumbing and irrigation fittings and fixtures. Chapter 8 - Article XVI of the Santa Ana Municipal Code incorporates the California Green Building Standards Code by reference.

City of Santa Ana General Plan Update

The Santa Ana General Plan Update includes the following goals and policies that are related to water supply and the proposed Project.

Economic Prosperity Element

POLICY 2.9 Collaborate with utility providers and regional partners to encourage business and industry to improve performance in energy efficiency, water conservation, and waste reduction.

Public Services Element

POLICY 3.7 Maintain emergency connections with local and regional water suppliers in the event of delivery disruption.

POLICY 3.8 Promote cost cost-effective conservation strategies and programs that increase water use efficiency.

POLICY 3.12 Maintain and upgrade sewer and water infrastructure through impact fees from new development and exploring other funding sources.

Conservation Element

POLICY 4.1 Encourage and educate residents, business owners, and operators of public facilities to use water wisely and efficiently.

POLICY 4.2 Encourage public and private property owners to plant native or drought tolerant vegetation.

POLICY 4.3 Continue to coordinate with the Orange County Water District, Orange County Sanitation District, and developers for opportunities to expand use of reclaimed water systems.

POLICY 4.4 Promote irrigation and rainwater capture systems that conserve water to support a sustainable community.

POLICY 4.5 Continue to collaborate with Orange County Water District and Metropolitan Water District to ensure reliable, adequate, and high-quality sources of water supply at a reasonable cost.

City of Santa Ana Municipal Code

Municipal Code Section 39-99; Permanent Water Conservation Requirements: The City promotes water use efficiency and includes the following water conservation requirements that are effective at all times.

- Watering of a lawn, landscape or other vegetated area between the hours of 8:00 a.m. and 6:00 p.m. is prohibited.
- No washing down hard or paved surfaces.
- Watering hours are limited.
- Using water to irrigate within 48 hours after rainfall is prohibited.
- Using water to wash or clean a vehicle is prohibited.
- The use of water to clean, fill or maintain levels in water features is prohibited.
- All leaks, breaks, or other malfunctions in the water user's plumbing, irrigation, or distribution system must be repaired within 72 hours.
- No restaurant, hotel, café, or cafeteria shall serve drinking water unless requested.
- Hotels, motels, and other commercial lodging must provide the option to opt out of towel and linen service.
- Food preparation establishments are prohibited from using non-water efficient kitchen spray valves.
- Installation of single pass cooling systems is prohibited in any new or remodeled building.
- Commercial car washes must have re-circulating water.
- Installation of non-recirculating water is prohibited in car washes and laundry systems.
- Watering or irrigation with a device that is not continuously attended is limited to 15 minutes per day.
- New planting should be performed with drought tolerant plants.
- Irrigating ornamental turf on public street medians is prohibited.
- A shutoff nozzle on hoses is required at all times.
- Unauthorized uses of hydrants are prohibited.

Municipal Code Section 39-100; Water Shortage Levels: The City created a Water Shortage Contingency Plan that defines six (6) water supply shortage levels corresponding to progressive ranges from 10 to 50 percent shortages and a greater than 50 percent shortage.

Municipal Code Section 41-1503; Landscape Water Use Standards: The City promotes water use efficiency through water efficient landscape requirements that were implemented in January 2016. This code requires that new landscape projects greater than 2,500 SF comply with the performance requirements of the City's Water Efficient Landscape Guidelines that identifies a maximum allowable water use for landscape that is implemented by efficient irrigation systems and drought tolerant landscape species.

5.15.2.2 WATER ENVIRONMENTAL SETTING

The City of Santa Ana Water Resources Division provides water services to a 27-square mile service area that includes the City of Santa Ana and a small area of the City of Orange.

Water Supply and Demand

The City’s water supply is a combination of imported water from the Metropolitan Water District of Southern California (MWD), groundwater from the Orange County Groundwater Basin (OC Basin), and recycled water. Groundwater production accounts for 70-77 percent of the water supply and MWD imported water accounts for 23-30 percent, while recycled water accounts for less than 1 percent. Table 5.15-1 below summarizes the water supply volume by source in 2020.

Table 5.15-1: City of Santa Ana Actual Water Supply in 2020

Source	Volume (acre-feet)	Percentage
OC Groundwater Basin	25,591	76.4%
Imported/Purchased	7,649	22.8%
Recycled	249	0.8%
Total	33,489	100%

Source: 2020 UWMP.

The Project site is currently developed with 16 commercial buildings that total 465,063 SF and include restaurants, a supermarket, banks, a dry cleaner, medical office, financial, and fitness uses and onsite landscaping. As shown in Table 5.15-2, the existing water demand for the Project site is approximately 27,500 GPD.

Table 5.15-2: Existing Water Demand for the Project Site

Land Use	SF	SF to Acres	Water Demand Factor ¹	Daily Water Use (GPD)	Annual Water Use (AFY)
Commercial	465,063	11	2,500 gpd/acre	27,500	30

Source: WSA, Appendix P

¹ City of Santa Ana Design Guidelines for Water and Sewer Facilities (November 2020)

As shown in Table 5.15-3, the WSA prepared for the Project details that the City’s water supply will increase from 33,489 acre-feet (AF) in 2020 to 33,827 AF in 2045 (increase of 338 AFY) to meet the City’s anticipated growth in water demands; including the buildout of the South Bristol Street Focus Area. Currently, 76 percent of the City’s water supply is groundwater from the OC Basin, 23 percent is from Metropolitan imported water and 1 percent is from recycled water by the year 2045 the City’s water supply portfolio is expected to change slightly with an increase to 84 percent from OC Basin groundwater, decrease to 15 percent from Metropolitan imported water, and 1 percent recycled water.

Table 5.15-3: City of Santa Ana Projected Water Supply and Demand Projections (acre-feet)

Source	2020	2025	2030	2035	2040	2045	2045 Percentage
OC Groundwater Basin	25,591	28,588	29,024	28,799	28,551	28,541	84.4%
Imported/Purchased	7,649	5,045	5,122	5,082	5,038	5,037	14.9%
Recycled	249	249	249	249	249	249	0.7%
Total Water Supply per Demand	33,489	33,882	34,395	34,130	33,838	33,827	100%

Source: WSA, Appendix P.

The 2020 UWMP also describes that water demands per capita have been decreasing in recent years due to new state and local regulations related to water conservation, and provided projections of water demand and supply ability to meet demand that were less than those previously identified in the 2015 UWMP based on the conservation features and limited growth in the City. The 2020 UWMP describes that the City used 66 gallons per capita per day (GPCD) in 2020, which is below the City’s target of 116 GPCD for 2020. As

shown in Table 5.15-4, the 2020 MWD UWMP indicates that MWD has supply capabilities that would be sufficient to meet demands from 2025 to 2045 under the normal, single dry-year, and multiple dry years. Thus, the City would continue to be able to utilize imported water supply as needed.

Table 5.15-4: MWD Multiple Climate Scenario Water Supply Capability and Projected Demands Comparison from 2025-2045 (AF)

Forecast Year	2025	2030	2035	2040	2045
Normal Year					
Capability of Current Supply	3,899,000	3,893,000	3,890,000	3,888,000	3,885,000
Total Demands	1,427,000	1,388,000	1,362,000	1,378,000	1,403,000
Supply Programs Under Development	13,000	13,000	13,000	13,000	13,000
Total Potential Surplus	2,485,000	2,518,000	2,541,000	2,523,000	2,495,000
Single-Dry Year					
Capability of Current Supply	2,772,000	2,761,000	2,760,000	2,760,000	2,757,000
Total Demands	1,544,000	1,500,000	1,473,000	1,496,000	1,525,000
Supply Programs Under Development	0	0	0	0	0
Total Potential Surplus	1,228,000	1,261,000	1,287,000	1,264,000	1,232,000
Multiple-Dry Year					
Capability of Current Supply	2,178,800	2,219,000	2,241,000	2,263,000	2,239,000
Total Demands	1,592,000	1,570,000	1,537,000	1,539,000	1,564,000
Supply Programs Under Development	0	0	0	0	0
Total Potential Surplus	586,800	649,000	704,000	724,000	675,000

Source: WSA, Appendix P

The water supply identified in Table 5.15-4 does not reflect the total supply available to the City for each of the scenarios. The City of Santa Ana has additional supply and resources available from MWD and sustainable management practices. The City’s 2015 UWMP estimated a higher demand for water supply and greater growth in the City through 2040 than the 2020 UWMP. The WSA prepared for the Project details that the City has an additional supply of 5,500 to 6,500 AFY than anticipated to be needed by the 2020 UWMP projections. Table 5.15-5 provides a comparison of the 2015 and 2020 UWMP assumptions of water supply demands and supplies.

Table 5.15-5: 2015 and 2020 UWMP Water Supply Comparison (AFY)

Forecast Year	2025	2030	2035	2040
Supply Normal Year				
2015 UWMP	39,717	39,989	39,978	40,036
2020 UWMP	33,882	34,395	34,130	33,838
Difference	5,835	5,594	5,848	6,198
Supply Single-Dry Year				
2015 UWMP	42,100	42,388	42,377	42,438
2020 UWMP	35,915	36,459	36,178	35,868
Difference	6,185	5,929	6,199	6,570
Supply Multiple-Dry Years				
First Year				
2015 UWMP	42,100	42,388	42,377	42,438
2020 UWMP	35,581	36,024	36,403	36,116
Difference	6,519	6,364	5,974	6,322
Second Year				
2015 UWMP	42,100	42,388	42,377	42,438
2020 UWMP	35,665	36,133	36,347	36,054
Difference	6,435	6,255	6,030	6,384
Third Year				
2015 UWMP	42,100	42,388	42,377	42,438
2020 UWMP	35,748	36,241	36,290	35,992
Difference	6,352	6,147	6,087	6,446

Source: WSA, Appendix P

Groundwater: As described previously, a majority of the City’s water supply is groundwater that is pumped from the OC Basin. The OC Basin covers an area of approximately 350 square miles, bordered by the Coyote and Chino Hills to the north, the Santa Ana Mountains to the northeast, the Pacific Ocean to the southwest, and terminates at the Orange County line to the northwest, where its aquifer systems continue into the Central Basin of Los Angeles County. Natural recharge consists of subsurface inflow from local hills and mountains, infiltration of precipitation and irrigation water, recharge in small flood control channels, and groundwater underflow to and from Los Angeles County and the ocean (UWMP 2020).

OCWD manages the OC Basin through a Basin Production Percentage (BPP) that is determined each water year based on groundwater conditions, availability of imported water supplies, water year precipitation, Santa Ana River runoff, and basin management objectives. While there is no legal limit as to how much an agency pumps from the OC Basin, there is a financial disincentive to pump above the BPP. For example, if the BPP is set at 77 percent for 2021-2022, all pumpers within the Basin, including the City, can supply 77 percent of their water needs from groundwater supplies at a cost significantly less than the cost of imported water. If groundwater production is equal to or less than the BPP (i.e., less than 77 percent in the example above), all producers within the Basin pay a replenishment assessment fee which is used to fund groundwater replenishment and recharge programs aimed at ensuring the long-term viability and stability of the Basin. OCWD anticipates being able to sustain the BPP at 85 percent starting in 2025 (UWMP 2020).

As required by Senate Bill 1262, the WSA prepared for the proposed Project describes that the OC Basin is designated as a medium-priority basin and has operated within its sustainable yield over a period of at least 10 years without experiencing significant and unreasonable (1) lowering of groundwater levels, (2) reduction in storage, (3) water quality degradation, (4) seawater intrusion, (5) inelastic land subsidence, or (6) depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water. In addition, the OC Basin has not been in a condition of critical overdraft.

Imported Water: The City of Santa Ana supplements its local water supply with imported water purchased from MWD. In fiscal year 2019-2020, the City relied on approximately 23 percent of the City's water supply portfolio on imported water from MWD to meet its demands. The 2020 MWD UWMP determined that MWD has supply capabilities that would be sufficient to meet expected demands from 2020 through 2045 under the normal, single dry-year and multiple dry-year conditions. The MWD imported water is treated at MWD's Robert Diemer Filtration Plant north of Yorba Linda. The City has seven connections to the MWD system. In addition, the City participates in MWD's Conjunctive Use Program, which stores surplus imported MWD water in the Basin to maintain reliability during dry, drought, and emergency conditions (UWMP 2020).

Recycled Water: The City obtains its recycled water supply from the Orange County Water District (OCWD) for non-potable uses such as irrigation. OCWD provided approximately 249 AF of recycled water to the City of Santa Ana in fiscal year 2019-2020 as part of the Green Acres Project (GAP), which is a water recycling system that provides up to 8,400 AFY of recycled water as an alternate source of water that is mainly delivered to parks, golf courses, greenbelts, cemeteries, and nurseries in the Cities of Santa Ana, Costa Mesa, Fountain Valley, Newport Beach. The City maintains an agreement with OCWD to supply GAP water to customers where available, and it is anticipated that recycled water supplied to the City would maintain around 249 AFY through 2045 (2020 UWMP). However, there is no available recycled water from OCWD to serve additional uses, including the proposed Project.

Water Infrastructure

The City maintains 480 miles of transmission and distribution mains, 9 reservoirs with a storage capacity of 49.3 million gallons, 7 pumping stations, and 21 groundwater wells. The Project site is currently served by the City's water utility and is connected to the existing water infrastructure. MacArthur Boulevard contains a 14-inch water main and Bristol Street, Sunflower Avenue, and Plaza Drive each contain 12-inch water mains that convey water supplies to the Project site and adjacent areas.

5.15.2.3 WATER THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to:

- UT-1 Require or result in the construction of new water facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects; or
- UT-2 Have sufficient water supplies available to serve the project and reasonably foreseeable development during normal, dry, and multiple dry years.

5.15.2.4 WATER SERVICE METHODOLOGY

The evaluation of water supply quantifies the amount of water that would be required to support operation of the proposed Project and compares the demand to the City's available water supply to identify if sufficient water supplies available to serve the proposed Project and reasonably foreseeable development during normal, dry, and multiple dry years. Additionally, the water supply infrastructure in the Project area was identified and evaluated to ensure design capacity would be adequate to supply the Project site, or to identify if expansions would be required to serve the proposed development.

5.15.2.5 WATER ENVIRONMENTAL IMPACTS

Summary of Impacts Identified in the GPU FEIR

The GPU FEIR addressed impacts related to utilities and service systems in Chapter 5.18.

Water Infrastructure. The GPU FEIR determined that with full buildout of the GPU, water demand would increase throughout the City. The GPU FEIR describes that although the City's distribution system is hydraulically sound, due to the age of the existing water infrastructure, water main replacements would be required. The GPU FEIR describes that the water demands to the South Bristol Street Focus Area would increase by 478,385 gpd from buildout of the Focus Area. Further, the GPU FEIR determined that through its planning and CIP mechanisms, the City would be able to implement improvements to have adequate capacity for the resulting increases in water demands across the City under implementation of the GPU. Additionally, the GPU includes regulatory requirements and relevant policies which contribute to reduce potential impacts to water infrastructure. Therefore, the GPU FEIR determined that impacts to water infrastructure would be less than significant.

Water Supply. The GPU FEIR was based on the 2015 UWMP and determined that the City would have enough supply to meet projected demands in normal, dry, and multiple dry years. GPU policies are also in place to encourage water conservation and several possible new water supplies are being considered such as expanded groundwater replenishment systems, a proposed MWD Regional Recycled Water Supply Program, and desalinated ocean water.

The GPU FEIR describes on Table 5.18-12 that the South Bristol Street Focus Area currently utilizes 136,957 gpd of water and that buildout of the South Bristol Street Focus Area pursuant to the GPU (5,492 residential dwelling units and 5,082,641 SF of non-residential space) would result in a water demand increase of 1,198,226 gpd, which is 875 percent increase in demand for water within the Focus Area. However, the GPU FEIR determined that the water demand increases as a result of the GPU are within the 2015 UWMP planned supplies from the City, OCWD, and MWD during normal-dry and multiple-dry year scenarios. Upon implementation of regulatory requirements and standard conditions of approval, impacts related to water supply were determined to be less than significant.

Sewer Infrastructure. The GPU FEIR determined that with full buildout of the GPU, sewer flows are estimated to increase, and new or expanded infrastructure would be needed to accommodate increased flows. Compliance with the OCWD sewage improvement process would reduce impacts to the City's wastewater system to less than significant levels. The GPU FEIR identified on Table 5.18-3 that within the South Bristol Street Focus Area, an estimated 478,385 gpd increase in sewer flows would occur from buildout of the Focus Area. The GPU FEIR stated that hydraulic improvements may be required to supplement the previous two improvements immediately adjacent to the area. The GPU FEIR determined that the sewage system in this Focus Area would be able to accommodate significant future growth due to its proximity to large OCSD trunk lines, and that impacts would be less than significant.

Wastewater Capacity. The GPU FEIR determined that full buildout of the GPU is estimated to generate an increased 6.8 millions of gallons per day (mgd) of wastewater, which is within the remaining capacity of OCSD Treatment Plant No. 1 and the groundwater replenishment system (GWRS). Sewer utility infrastructure improvements and wastewater discharge quality would be required to comply with applicable city or federal guidelines. Therefore, wastewater generated through development would have a less than significant impact on the City and OCSD's overall wastewater collection and treatment facilities and systems.

Drainage Infrastructure. The GPU FEIR determined that drainage impacts would be less than significant with compliance to provisions under the Orange County MS4 Permit.

Solid Waste Capacity. With full buildout of the GPU, the Frank R. Bowerman Landfill is expected to provide long-term solid waste landfill capacity. Development under the GPU would be required to comply with waste, recycling, and organic waste guidelines on federal, state, and local levels. Therefore, solid waste facilities would be able to accommodate project-generated solid waste and comply with regulations, resulting in less than significant impacts.

Electricity and Natural Gas. The GPU FEIR determined that increased electricity demands at full buildout are within the forecasted demand in Southern California Edison's service area; therefore, impacts would be less than significant. Likewise, increased natural gas demands at full buildout are within the forecasted demand that SoCal Gas would supply, and impacts would be less than significant.

Proposed Specific Plan Project

IMPACT UT-1: THE PROJECT WOULD NOT REQUIRE OR RESULT IN THE RELOCATION OR CONSTRUCTION OF NEW WATER FACILITIES, OR EXPANSION OF EXISTING FACILITIES, THE CONSTRUCTION OF WHICH COULD CAUSE SIGNIFICANT ENVIRONMENTAL EFFECTS.

Less than Significant Impact. The proposed Project would redevelop the Project site, which is currently served by the City's water infrastructure. The Project site is currently served by an existing 12-inch water main in Plaza Drive, an existing 14-inch water main in MacArthur Boulevard, an existing 12-inch water main in Bristol Street, an existing 12-inch water main in Callen's Common (which is an onsite private roadway that bisects the site), and an existing 12-inch water main in Sunflower Avenue.

The proposed Project would demolish the existing buildings on the Project site and remove the onsite infrastructure, including water mains. The proposed Project would install a new onsite water infrastructure system that would connect to water mains adjacent to the site. The onsite improvements include replacement of the existing 12-inch water main in Callen's Common between South Plaza Drive and Bristol Street with a new 12-inch water main and construction of a 12-inch water main in Bristol Paseo from MacArthur Boulevard to Sunflower Avenue with connections to other onsite private water infrastructure. The proposed Project also includes offsite infrastructure improvements that would replace a portion of the 12-inch water main in South Plaza Drive from MacArthur Boulevard to Sunflower Ave with a 12-inch water main. Also, the existing 12-inch water mains in Sunflower Avenue from South Plaza Drive to Bristol Street and Bristol Street from MacArthur Boulevard to Sunflower Avenue would be replaced "in-kind" with new 12-inch water mains. The new onsite and new offsite water infrastructure would convey water supplies to the proposed residences, commercial uses, and landscaping through plumbing/landscaping fixtures that would be compliant with the Title 24/CALGreen Plumbing Code for efficient use of water, which would be ensured through the City's development permitting process.

The proposed Project would continue to receive water supplies through the existing and improved water mains that are adjacent and near the site. This is consistent with the GPU FEIR findings that the City's water distribution system is hydraulically sound, but that due to the age and capacity of the existing water infrastructure, water main replacements would be required. Hydraulic modeling is required by the City to confirm the ability of the infrastructure to provide the peak flow demands and fire flows to the Project and existing land uses. The proposed installation of the new onsite water distribution lines would replace existing infrastructure and would serve the proposed Project. The construction activities related to the new onsite and offsite water infrastructure would occur within urban and developed areas that would be disturbed for other aspects of the proposed Project. The onsite infrastructure would be removed as part of Project grading and site preparation activities, and the new onsite infrastructure would be installed as part of grading, building construction, and installation of other utilities. The proposed offsite improvements to water mains would occur within roadway rights-of-way that would be improved as part of implementation of the proposed Project. Overall, the installation of new water infrastructure and improvements to offsite aged infrastructure is included as part of the proposed Project and would not result in any physical environmental effects beyond those identified throughout this Supplemental EIR. For example, analysis of construction emissions for excavation and installation of the water infrastructure is included in Sections 5.1, *Air Quality*, and 5.5, *Greenhouse Gas Emissions*, and noise related to construction activities is included in Section 5.9, *Noise*. Therefore, impacts related to water infrastructure would be less than significant.

This is consistent with the GPU FEIR, which determined that through its planning and CIP mechanisms, the City would provide improvements to aged infrastructure to have adequate capacity for the proposed increases in water flows from buildout of the GPU, including those from buildout of the South Bristol Street Focus Area, and that impacts would be less than significant.

IMPACT UT-2: THE CITY WOULD HAVE SUFFICIENT WATER SUPPLIES AVAILABLE TO SERVE THE PROJECT AND REASONABLY FORESEEABLE DEVELOPMENT DURING NORMAL, DRY, AND MULTIPLE DRY YEARS.

Less than Significant Impact. The proposed Project would redevelop the Project site, which is currently developed with 16 commercial buildings that include restaurants, a supermarket, banks, a dry cleaner, medical office, financial, and fitness uses and onsite landscaping. Water demand estimates for buildout of the South Bristol Street Focus Area were included in the GPU FEIR based on the 2015 UWMP; which determined that the City has adequate water supplies in multiple dry years to serve the City’s need for water. Because the proposed Project is within the maximum buildout of the Project site as anticipated by the GPU, it is within the GPU FEIR water demand projections.

A site-specific WSA was prepared for the proposed Project to identify the water demand of 3,750 multi-family residential units, 200 units for senior living, a 250-room hotel, commercial uses, and 6.6 acres of landscaping. As shown in Table 5.15-6, the WSA determined that the proposed Project would result in an increase of 802,359 GPD or 899 AFY. This volume of water supply was accounted for in the City’s 2015 UWMP (as determined by the GPU FEIR). Additionally, as detailed previously in Table 5.15-5, the City has an additional supply of 5,500 to 6,500 AFY beyond that anticipated to be needed by the 2020 UWMP projections. Therefore, the City would have sufficient water supplies available.

Table 5.15-6: Operational Increase in Water Demands with Project Buildout

Land Use	Proposed	Water Duty Factor	Proposed Daily Water Usage (GPD)	Proposed Annual Water Usage (AFY)
Multi-Family Residential	3,750 du	190 gpd/unit	712,500	798
Senior Living/ Continuum of Care	200 units	190 gpd/unit	38,000	43
Hospitality	250 keys	180 gpd/room	45,000	50
Commercial	350,000 gsf	2,500 gpd/acre	20,087	23
Landscaping	6.6 acres	ETWU equation	13,463	15
Proposed Water Demands			829,050	929
Existing Water Demands (Commercial)			26,691	30
Proposed Minus Existing Water Demands			802,359	899

Source: WSA, Appendix P

The water factors used herein are conservative and are higher than the average water use and assume full occupancy of the proposed Project to identify the maximum potential demand for water supplies. Because the proposed Project would result in an increase in demand for water supplies that has been accounted for within previous City water supply planning, and separately verified through a Project specific WSA, the City would have adequate water supplies available to serve the proposed Project, and impacts would be less than significant.

Therefore, impacts related to water supplies from the proposed Project are consistent with the findings of the GPU FEIR, which determined that water demand increases as a result of the GPU are within the planned supplies from the City, OCWD, and MWD during normal-dry and multiple-dry year scenarios, and that impacts would be less than significant.

5.15.2.6 WATER CUMULATIVE IMPACTS

Cumulative water supply impacts are considered on a citywide basis and are associated with the capacity of the infrastructure system and the adequacy of the City's infrastructure and primary sources of water that include groundwater pumped through City wells, deliveries of imported water from MWD, and recycled water from OCWD. Potential impacts related to water supply and infrastructure are based on the projections contained within the City's GPU, GPU FEIR, 2015 UWMP, and 2020 UWMP.

As described previously, during construction of the proposed Project new water mains would be installed to serve the proposed buildings and landscaping, which would connect to improved offsite water mains that are adjacent to the Project site. The onsite water system has been designed for the proposed Project and would be served by existing and improved offsite infrastructure. The City requires that all water system improvements be confirmed through hydraulic studies to confirm compliance with engineering standards, and ensure that cumulative impacts do not occur.

The WSA that was prepared for the proposed Project describes that the 2020 MWD UWMP details the ability to meet the demands of its member agencies, including the City of Santa Ana, through 2045. In addition, the City of Santa Ana 2015 UWMP, GPU FEIR, and 2020 UWMP confirmed the ability of the City to meet water needs in multiple dry year scenarios with buildout of the South Bristol Street Focus Area. Thus, the City would have water supplies available to serve the proposed Project and reasonably foreseeable development in normal, dry, or multiple dry years. Impacts related to a cumulatively considerable increase in water supply demands would be less than significant.

5.15.2.7 EXISTING STANDARD CONDITIONS AND PLANS, PROGRAMS, OR POLICIES

The following standard regulations would reduce potential impacts related to water:

- California Code of Regulations Title 24, Part 11; the California Green Building Code
- Santa Ana Municipal Code Section 39-106; Permanent Water Conservation Requirements
- Santa Ana Municipal Code Section 41-1503; Landscape Water Use Standards

5.15.2.8 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

With implementation of existing regulatory requirements that would be ensured through the City's development permitting process, Impacts UT-1 and UT-2 would be less than significant.

5.15.2.9 WATER MITIGATION MEASURES

GPU FEIR Mitigation Measures

No mitigation measures related to water supply or infrastructure were included in the GPU FEIR.

Proposed Specific Plan Project Mitigation Measures

No new mitigation measures are required for the proposed Project.

5.15.2.10 WATER LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant unavoidable adverse impacts related to water supplies or water infrastructure would occur.

5.15.3 WASTEWATER

5.15.3.1 WASTEWATER REGULATORY SETTING

National Pollution Discharge Elimination System Permit

The NPDES permit system was established in the Federal Clean Water Act to regulate both point source discharges (a municipal or industrial discharge at a specific location or pipe) and nonpoint source discharges (diffuse runoff of water from adjacent land uses) to surface waters of the U.S. For point source discharges, such as sewer outfalls, each NPDES permit contains limits on allowable concentrations and mass emissions of pollutants contained in the discharge.

State Water Resources Control Board Statewide General Waste Discharge Requirements for Sewer Systems

The Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (SWRCB Order No 2006-0003-DWQ) applies to sanitary sewer systems that are greater than one mile long and collect or convey untreated or partially treated wastewater to a publicly owned treatment facility. The goal of Order No. 2006-0003 is to provide a consistent statewide approach for reducing Sanitary Sewer Overflows (SSOs), which are accidental releases of untreated or partially treated wastewater from sanitary sewer systems, by requiring that:

1. In the event of an SSO, all feasible steps be taken to control the released volume and prevent untreated wastewater from entering storm drains, creeks, etc.
2. If an SSO occurs, it must be reported to the SWRCB using an online reporting system developed by the SWRCB.
3. All publicly owned collection system agencies with more than one mile of sewer pipe in the state must develop a Sewer System Management Plan (SSMP), which must be updated every five years.

The City of Santa Ana has updated its Sewer System Management Plan in compliance with these requirements in 2022.

City of Santa Ana General Plan

The Santa Ana General Plan Update includes the following goals and policies that are related to wastewater and the proposed Project.

Public Services Element

- POLICY 3.2** Provide and maintain wastewater collection facilities which adequately serve existing land uses and future development projects while maximizing cost efficiency.
- POLICY 3.3** Explore new technologies that treat and process wastewater that reduce overall capacity needs of centralized wastewater systems.
- POLICY 3.12** Maintain and upgrade sewer and water infrastructure through impact fees from new development and exploring other funding sources.

5.15.3.2 WASTEWATER ENVIRONMENTAL SETTING

In 2020, the City of Santa Ana generated approximately 21,768 acre-feet of wastewater (2020 UWMP). The City of Santa Ana operates and maintains the local sewer system consisting of approximately 390 miles of pipeline, 7,360 manholes, and two lift stations that connect to OCSD's trunk system to convey water to OCSD Treatment Plant 1. Wastewater from the Project site currently discharges into a private 8-inch sewer main (COSA) along the southern boundary which drains westerly toward an existing City 8-inch sewer main at Sunflower Avenue and Bristol Street that drains into the 78-inch OCSD trunk sewer in Sunflower Avenue.

The GPU FEIR determined that the existing wastewater flows for the South Bristol Street Focus Area are 565,500 gpd with an average flow of 0.0534 cubic feet per second (cfs) and a peak flow of 0.160 cfs. The Sewer Study (Appendix Q) prepared for the proposed Project monitored existing flows in Plaza Drive, Sunflower Avenue, and the private 8-inch COSA sewer main southwest of the site and determined that the OCSD 15-inch sewer main in Plaza Drive sewer has a capacity of 1.99 cfs, OCSD 78-inch sewer at Sunflower Avenue has a capacity of 96.80 cfs when it is $\frac{3}{4}$ full, and the COSA 8-inch sewer main at the southwest of the site at has a capacity of 0.366 cfs when it is half full (Appendix Q).

Wastewater from the Project site is treated at OCSD's Treatment Plant No. 1 in Fountain Valley. The treatment plant has a secondary treatment capacity of 182 mgd. Average wastewater flows through Plant No. 1 are about 120 to 130 mgd; and therefore, the Plan has an additional capacity of approximately 52 mgd (GPU FEIR).

5.15.3.3 WASTEWATER THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to:

- UT-3 Require or result in the construction of new wastewater facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects; or
- UT-4 Result in a determination by the wastewater treatment provider that would serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

5.15.3.4 WASTEWATER SERVICE METHODOLOGY

The evaluation of wastewater infrastructure quantifies the amount of wastewater that would be generated from operation of the proposed Project and compares the demand to the existing and planned sewer infrastructure in the Project area and wastewater treatment plant that treats flows from the Project site. The evaluation identifies if expansions would be required to serve the proposed development, and if those expansions have the potential to result in an environmental impact.

5.15.3.5 WASTEWATER ENVIRONMENTAL IMPACTS

Summary of Impacts Identified in the GPU FEIR

The GPU FEIR determined that the City would conduct sewer studies for individual projects within the GPU buildout area and upsizing sewer pipes would be analyzed on a case-by-case basis. The GPU FEIR also determined that OCSD's Treatment Plant No. 1 would be able to accommodate the increase in wastewater generated by development pursuant to the GPU at buildout. Thus, the GPU FEIR determined that impacts related to wastewater would be less than significant with implementation of regulatory requirements and GPU policies.

Proposed Specific Plan Project

IMPACT UT-3: THE PROJECT WOULD NOT REQUIRE OR RESULT IN THE RELOCATION OR CONSTRUCTION OF NEW WASTEWATER FACILITIES, OR EXPANSION OF EXISTING FACILITIES, THE CONSTRUCTION OF WHICH COULD CAUSE SIGNIFICANT ENVIRONMENTAL EFFECTS.

Less than Significant Impact. The Project site is currently served by a private 8-inch sewer main along the southern boundary which drains westerly toward an existing city-owned 8-inch sewer main at Sunflower Avenue and Bristol Street that drains into the 78-inch OCSD sewer main in Sunflower Avenue. The proposed Project would install a new onsite sewer system that would connect directly to the 78-inch OCSD sewer main in Sunflower Avenue.

A Sewer Analysis Report (Appendix Q) was prepared to determine whether the sewer system would be able to adequately handle the wastewater flows from the proposed Project in addition to existing flows. The analysis determined that the existing commercial development on the Project site generates an average flow of 0.0534 cfs with a peak flow of 0.160 cfs. The proposed Project would generate an average flow of 1.177 cfs with a peak flow of 3.530 cfs. Thus, the proposed Project would result in an increase of flows by an average daily flow of 1.1236 cfs and a peak flow of 3.370 cfs.

Based on results of the Sewer Analysis Report (Appendix Q), the proposed Project would install a new onsite sewer system that would connect to the existing 78-inch OCSD sewer main within the Sunflower Avenue right-of-way. The Sewer Analysis Report determined that the Sunflower Avenue OCSD sewer main has a maximum capacity of 96.8 cfs and has adequate capacity to accommodate the additional wastewater flows from the proposed Project.

The construction activities related to the new onsite sewer system and connection to the existing 78-inch OCSD sewer main is included as part of the proposed Project and would not result in any physical environmental effects beyond those identified throughout this Supplemental EIR. For example, an analysis of construction emissions for excavation and installation of the sewer infrastructure is included in Sections 5.1, *Air Quality*, and 5.5, *Greenhouse Gas Emissions*, and noise volumes from these activities are evaluated in Section 5.9, *Noise*. As the proposed Project includes facilities to serve the proposed Project and connect to sewers that would have capacity to serve the proposed Project, it would not result in the need for construction of other new wastewater facilities or expansions, the construction of which could cause significant environmental effects. Therefore, potential impacts related to wastewater infrastructure would be less than significant.

This determination is consistent with that of the GPU FEIR, which determined that increases in wastewater from buildout of the South Bristol Street Focus Area increases would be accommodated by the OCSD trunk sewer mains that are proximate to the area, and that impacts related to sewer infrastructure would be less than significant.

IMPACT UT-4: THE PROJECT WOULD RESULT IN A DETERMINATION BY THE WASTEWATER TREATMENT PROVIDER THAT WOULD SERVE THE PROJECT THAT IT HAS ADEQUATE CAPACITY TO SERVE THE PROJECTS PROJECTED DEMAND IN ADDITION TO EXISTING COMMITMENTS.

Less than Significant Impact. The proposed Project would result in an increase of wastewater generation from the site. To evaluate the maximum potential impact of the proposed Project on wastewater treatment facilities, and because wastewater treatment facility capacity is based on mgd not cfs, the GPU FEIR multiplied water flow factors by 0.95 to determine sewer flows. As described previously in the Impact UT-2 discussion, based on Appendix P, the proposed Project would generate an increased water demand from

the site of 802,359 gpd of water. Assuming all of this needs treatment, the proposed Project would result in an 762,241.05 gpd (0.76 mgd) increase in flows to the OCSD Reclamation Plant No. 1 in Fountain Valley.

As noted above, the OCSD 78-inch sewer in Sunflower Avenue conveys wastewater to the OCSD Reclamation Plant No. 1, which has a treatment capacity of 345 mgd during peak wet weather and 182 MGD during dry weather (RWQCB 2023). Average wastewater flows through Plant No. 1 are about 120 to 130 mgd (GPU FEIR). Due to the existing additional capacity of 52 mgd, the existing facilities would be available to accommodate the 0.80 mgd increase in wastewater flow from full occupancy of the proposed Project. As a result, implementation of the proposed Project would not result in inadequate capacity of the wastewater treatment plant to serve the proposed Project's demand in addition to existing service commitments, and impacts would be less than significant. This is consistent with the GPU FEIR, which determined that wastewater generated through development in accordance with the GPU would have a less-than-significant impact on the existing wastewater collection and treatment facilities and systems.

5.15.3.6 WASTEWATER CUMULATIVE IMPACTS

Cumulative wastewater infrastructure impacts are considered on a systemwide basis and are associated with the overall capacity of existing and planned infrastructure. The cumulative system evaluated includes the sewer system that serves the Project site and conveys wastewater to the OCSD wastewater treatment and disposal system.

As described previously, with the proposed Project, the sewer system would have sufficient capacity to handle the increased flows resulting from implementation of the proposed Project. The continued regular assessment, maintenance, and upgrades of the sewer system by the City and OCSD would reduce the potential of cumulative development projects to result in a cumulatively substantial increase in wastewater such that new or expanded facilities would be required. Thus, increases in wastewater in the sewer system would result in a less than significant cumulative impact.

5.15.3.7 EXISTING STANDARD CONDITIONS AND PLANS, PROGRAMS, OR POLICIES

The following standard regulations would reduce potential impacts related to wastewater:

- California Code of Regulations Title 24, Part 11; the California Green Building Code

5.15.3.8 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Impacts UT-3 and UT-4 would be less than significant.

5.15.3.9 WASTEWATER MITIGATION MEASURES

GPU FEIR Mitigation Measures

No mitigation measures related to wastewater were included in the GPU FEIR.

Proposed Specific Plan Project Mitigation Measures

No new mitigation measures are required for the proposed Project.

5.15.3.10 WASTEWATER LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant unavoidable adverse impacts related to wastewater infrastructure would occur.

5.15.4 DRAINAGE

5.15.4.1 DRAINAGE REGULATORY SETTING

Santa Ana Regional Municipal Separate Storm Sewer System Permit

The Municipal Separate Storm Sewer System (MS4) Permit (Order No. R8-2009-0030) for the Santa Ana Region regulates urban runoff from areas under jurisdiction of the Permit's various permittees, which include Orange County, Orange County Flood Control District, and the incorporated cities within Orange County including the City of Santa Ana. When discharged, urban runoff (or stormwater) has the potential to mix with and carry various pollutants into receiving waters. The Permit lists allowable and unallowable discharges and requires implementation of LID infrastructure, which are engineered facilities that are designed to retain and/or biotreat runoff on the project site. Developments that qualify as New Development or Significant Redevelopment projects are considered priority projects and are required to develop a site-specific water quality management plan (WQMP), which includes site design, source control, and treatment control elements to reduce the discharge of pollutants in runoff. The proposed Project is considered a Significant Redevelopment project and therefore must implement a WQMP. The WQMP is required to be approved prior to the issuance of a building or grading permit, and post-construction BMPs are required to be implemented. The MS4 Permit requires priority projects to infiltrate, harvest and use, evapotranspire, or biotreat/biofilter, the 85th percentile of a 24-hour storm event (Design Capture Volume). The MS4 Permit also requires the evaluation and use of LID features using the following hierarchy of treatment: infiltration, evapotranspiration, harvest/reuse, and biotreatment.

Biotreatment BMPs are a broad class of LID BMPs that reduce stormwater volume to the maximum extent practicable, treat stormwater using a suite of treatment mechanisms characteristic of biologically active systems, and discharge water to the downstream storm drain system or directly to receiving waters. Treatment mechanisms include media filtration (through biologically-active media), vegetative filtration (straining, sedimentation, interception, and stabilization of particles resulting from shallow flow through vegetation), general sorption processes (i.e., absorption, adsorption, ion exchange, precipitation, surface complexation), biologically-mediated transformations, and other processes to address both suspended and dissolved constituents. Examples of biotreatment BMPs include bioretention with underdrains, vegetated swales, constructed wetlands, and proprietary biotreatment systems.

County of Orange Drainage Area Management Plan

The Drainage Area Management Plan (DAMP) is the County's primary policy, planning and implementation document for NPDES Permit compliance. The DAMP describes the agreements, structures and programs that:

- Provide the framework for the program management activities and plan development;
- Provide the legal authority for prohibiting unpermitted discharges into the storm drain system and for requiring BMPs in new development and significant redevelopment;
- Ensure that all new development and significant redevelopment incorporates appropriate Site Design, Source Control, and Treatment Control BMPs to address specific water quality issues;
- Ensure that construction sites implement control practices that address construction related pollutants including erosion and sediment control and onsite hazardous materials and waste management.

The DAMP requires that new development and significant redevelopment projects (or priority projects), such as the proposed Project, develop and implement a Preliminary WQMP that includes BMPs and LID design features that would provide onsite treatment of stormwater to prevent pollutants from onsite uses from

leaving the site. The WQMP is required to be prepared in accordance with the North Orange County Technical Guidance Document (TGD) which is provided as exhibit 7.III to the DAMP.

City of Santa Ana General Plan

The following objectives and policies from the existing General Plan Update (GPU) Conservation Element are relevant to the proposed Project:

Public Services Element

- POLICY PS-3.5** Incorporate sustainable design and Low Impact Development (LID) techniques for stormwater facilities and new development to achieve multiple benefits, including enhancing, preserving, and creating open space and habitat; reducing flooding; and improving runoff water quality.

Conservation Element

- POLICY CN-4.6** Work with public and private property owners to reduce storm water runoff and to protect the water quality percolating into the aquifer and into any established waterway.

Safety Element

- POLICY S-1.7** Encourage site drainage features that reduce impermeable surface area, increase surface water infiltration, and minimize surface water runoff during storm events on private and public developments.

City of Santa Ana Municipal Code

Section 18-156; Control of Urban Runoff: This code section states that all new development and significant redevelopment within the City shall be undertaken in accordance with the County DAMP, including but not limited to the development project guidance; and any conditions and requirements established by City agencies related to the reduction or elimination of pollutants in stormwater runoff from the project site. Prior to the issuance by the City of a grading permit, building permit or nonresidential plumbing permit for any new development or significant redevelopment, City agencies are required to review the project plans and impose terms, conditions, and requirements on the project.

5.15.4.2 DRAINAGE ENVIRONMENTAL SETTING

Storm Drainage Facilities

The Project site is located within the Newport Bay Watershed. The proposed Project site is tributary to the Orange County Flood Control District (OCFCD) Santa Ana Gardens Channel, Facility No. F02, which is tributary to the OCFCD Santa Ana-Delhi Channel, Facility No. F01, Upper Newport Bay, and ultimately the Pacific Ocean. The Santa Ana Gardens Channel is a concrete lined channel from upstream at 1st Street to MacFadden Avenue. Downstream of Alton Avenue, the channel is a reinforced rectangular concrete section, with a culvert at MacArthur Boulevard and Bristol Street. The Santa Ana Gardens Channel confluences with the Santa Ana-Delhi Channel at Sunflower Avenue, east of Bristol Street, and continues flowing southerly toward Upper Newport Bay. The Project site is currently 90 percent impervious and 10 percent pervious (Appendix M). The existing topography of the Project site is relatively flat and generally slopes to the west. Drainage from the Project site currently flows to storm drains in Plaza Drive, Sunflower Avenue, Bristol Street, and MacArthur Boulevard; and then to the Santa Ana Gardens Channel, Santa Ana-Delhi Channel, Newport

Bay, and the Pacific Ocean. The existing storm drains and the connections to the Project site are listed on Table 5.15-7.

Table 5.15-7: Existing Storm Drain Connections from the Project Site

Location	Outfall	Existing Storm Drain
MacArthur Boulevard	1	30-inch lateral to 63-inch storm drain
	2	
Bristol Street	3	24-inch lateral
Plaza Drive	4	36-inch to 42-inch storm drain
Sunflower Avenue	5	54-inch to 60-inch storm drain
	6	
	7	

Source: Preliminary Hydrology Report (Appendix L).

Soil Infiltration

Onsite soils infiltration testing was performed during preparation of the Preliminary Geotechnical Investigation Report (Appendix G), which determined that the upper 25 to 30 feet of soils consist predominantly of medium to stiff lean clay (CL) and fat clay (CH) and based on percolation tests results are not suitable for infiltration. The testing identified infiltration rates of <0.10 inches per hour which is a low infiltration rate and considered infeasible to support drainage on the Project site. Groundwater was encountered at a depth of 12-feet and 16 -feet below ground surface (bgs) (Appendix G). As shown in Figure XVI-2f of the North OC TGD, the eastern boundary of the Project site is within the boundary of South Basin Groundwater Protection Project. However, the Project site would not infiltrate into the South Basin groundwater.

5.15.4.3 DRAINAGE THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to:

- UT-5 Require or result in the construction of new stormwater drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects.

5.15.4.4 DRAINAGE METHODOLOGY

The evaluation of stormwater drainage infrastructure quantifies the amount of impervious surfaces and stormwater runoff that would be generated from the proposed Project and identifies if runoff from the proposed Project would be accommodated by the existing stormwater drainage infrastructure. The evaluation identifies if expansions would be required to serve the proposed development, and if those expansions have the potential to result in an environmental impact.

5.15.4.5 DRAINAGE ENVIRONMENTAL IMPACTS

Summary of Impacts Identified in the GPU FEIR

The GPU FEIR determined that the City is largely built out with no major undeveloped spaces. Development projects would be required to include hydrology studies to ensure increases in peak flow are mitigated. Additionally, GPU policies encourage features that minimize runoff. The GPU FEIR determined that specific project plans would be subject to federal, state, and local regulations that would reduce drainage impacts in the urban environment to a less than significant level.

Proposed Specific Plan Project

IMPACT UT-5: THE PROJECT WOULD NOT REQUIRE OR RESULT IN THE RELOCATION OR CONSTRUCTION OF NEW DRAINAGE FACILITIES, OR EXPANSION OF EXISTING FACILITIES, THE CONSTRUCTION OF WHICH COULD CAUSE SIGNIFICANT ENVIRONMENTAL EFFECTS.

Less than Significant Impact. As described previously, the Project site currently drains to storm drains in Plaza Drive, Sunflower Avenue, Bristol Street, and MacArthur Boulevard via seven outfall connections. The Preliminary Water Quality Management Plan (WQMP) for the proposed Project describes that the Project site currently includes 37.02 acres of impermeable surfaces, which equates to 90 percent of the site. After completion of Project construction, the site would have a 4 percent reduction in impermeable surfaces to 35.37 acres or 86 percent of the site. As shown on Table 5.15-8, the reduction in impervious surfaces would result in a reduction in the 2-year, 24-hour storm volume by 6.3 percent. Hydraulic conditions would not be of concern due to the reduction in the 2-year, 24-hour storm volume.

Table 5.15-8: Proposed Project Two-Year Storm Runoff Rate

Storm Drain	Existing Condition	Proposed Condition
MacArthur Boulevard	18.3	17.8
Bristol Street	9.4	7.3
Plaza Drive	2.2	1.4
Sunflower Avenue	27.3	27.1
Totals	57.2	53.6
Change		-6.3%

Source: Preliminary Hydrology Report, Appendix L

The proposed Project would maintain the existing drainage pattern on the site. Runoff would be collected by roof drains, surface flow designed pavement, curbs, and area drains and conveyed to vegetated biotreatment systems for treatment. Treated runoff would be conveyed to the existing storm drains adjacent to the site. The proposed Project related runoff conditions (flow rates) would decrease from existing conditions (shown in Table 5.15-8), and the proposed Project would manage the runoff with vegetated biotreatment systems that have been designed to accommodate the proposed Project, which would be verified through the City’s WQMP review and permitting process.

Although the proposed Project would result in a reduction of stormwater runoff, the Project includes offsite storm drain improvements pursuant to the City’s Storm Drain Master Plan that involve replacing 2,230 lineal feet of the 54/60-inch storm drain with a 72-inch lateral in Sunflower Avenue and replacing a 42-inch lateral in Plaza drive with a 60-inch lateral. This is being done to implement City’s needed drainage Master Plan improvements within the rights-of-way that would be reconstructed as part of the proposed Project. The effects of the improvements are part of construction of the Project as a whole and are included in the evaluation throughout this Supplemental EIR. However, due to the decrease in stormwater runoff, the Project would not require the need to construct new or expanded drainage facilities. Therefore, impacts related to drainage facilities would be less than significant.

This finding is consistent with the GPU FEIR discussion related to development projects increasing onsite permeability and providing onsite detention systems that would be evaluated in detailed hydrology studies to ensure that existing peak flows would not be exceeded, thereby eliminating any potential increase in runoff and that impacts to the storm drain system would be less than significant.

5.15.4.6 DRAINAGE CUMULATIVE IMPACTS

The geographic scope for cumulative impacts related to stormwater drainage includes the geographic area served by the existing stormwater infrastructure for the Project area, from capture of runoff through final discharge points. As described above the proposed Project would result in a reduction in stormwater runoff from the Project site. As a result, the proposed Project would not generate additional runoff that could combine with runoff from cumulative projects that could cumulatively combine to impact drainage. Thus, cumulative impacts related to drainage would be less than significant.

5.15.4.7 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Impact UT-5 would be less than significant.

5.15.4.8 DRAINAGE MITIGATION MEASURES

GPU FEIR Mitigation Measures

No mitigation measures related to drainage were included in the GPU FEIR.

Proposed Specific Plan Project Mitigation Measures

No new mitigation measures are required for the proposed Project.

5.15.4.9 DRAINAGE LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant unavoidable adverse impacts related to drainage would occur.

5.15.5 SOLID WASTE

5.15.5.1 SOLID WASTE REGULATORY SETTING

California Assembly Bill 341

On October 6, 2011, Governor Brown signed AB 341 establishing a state policy goal that no less than 75 percent of solid waste generated be source reduced, recycled, or composted by 2020, and requiring CalRecycle to provide a report to the Legislature that recommends strategies to achieve the policy goal.

California Assembly Bill 1383

On September 19, 2016, Governor Brown signed SB 1383 establishing regulations aimed to reduce organic waste disposal 75 percent and reduce least 20 percent of currently disposed surplus edible food by 2025. The intent of the law is to reduce methane, increase landfill usage, and provide additional food sources for Californians.

California Assembly Bill 1826

On September 28, 2014, Governor Brown signed AB 1826 requiring businesses to recycle their organic waste on and after April 1, 2016, dependent on the amount of waste generated per week. This law requires that local jurisdictions implement an organic waste recycling program to divert organic waste generated by businesses and multifamily residential dwellings that consist of five or more units. This law requires that local

jurisdictions implement an organic waste recycling program to divert organic waste generated by businesses and multifamily residential dwellings that consist of five or more units.

California Medical Waste Management Act

The California Medical Waste Management Act, codified in California Health and Safety Code 117600-118360, regulates the generation, handling, storage, treatment, and disposal of medical waste. Medical waste includes any biohazardous, pathology, pharmaceutical, or trace chemotherapy waste; sharps and trace chemotherapy wastes generated in the diagnosis, treatment, immunization, or care of humans or animals; waste generated in research pertaining to the production or testing of microbiologicals; and waste generated in research using human or animal pathogens. This would regulate waste generated by any onsite medical facilities, including the Senior/Continuum of Care housing facility.

California Green Building Standards

Section 5.408.1 Construction waste diversion. Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste.

5.410.1 Recycling by occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals, or meet a lawfully enacted local recycling ordinance, if more restrictive.

5.15.5.2 SOLID WASTE ENVIRONMENTAL SETTING

In 2019, a majority (80 percent) of the solid waste from the City of Santa Ana, which was disposed of in landfills, went to the Frank Bowerman Sanitary Landfill (CalRecycle 2023). The Frank R. Bowerman Sanitary Landfill received the largest amount of waste in 2019 which was 227,124 tons. The Olinda Alpha Sanitary Landfill received 31,849 tons. The total solid waste disposed from the City was 284,561 tons. The Frank Bowerman Sanitary Landfill is permitted to accept 11,500 tons per day of solid waste and is permitted to operate through 2053. In March 2023, the maximum tonnage received was 8,909.41 tons. Thus, the facility had additional capacity of 2,666.27 tons per day (CalRecycle 2023).

5.15.5.3 SOLID WASTE THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to:

- UT-6 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-7 Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

5.15.5.4 SOLID WASTE METHODOLOGY

Solid waste generation from construction and operation of the proposed Project was estimated using USEPA and CalRecycle solid waste generation factors derived for multi-family residential and commercial uses. Solid waste volumes were then compared with recent estimates of remaining disposal capacity of the landfill serving the City. In addition, potential impacts related to compliance with solid waste regulations were evaluated by identifying how the proposed Project would implement the relevant requirements.

5.15.5.5 SOLID WASTE ENVIRONMENTAL IMPACTS

Summary of Impacts Identified in the GPU FEIR

The GPU FEIR identified that buildout of the South Bristol Street Focus Area would result in an increase of 40,706 pounds per day, and that the citywide increase in solid waste from buildout of the GPU would be 3,137,616 pounds per day that would be subject to organics, food waste and recycling regulations. The GPU FEIR determined that the Frank R. Bowerman Landfill and the Orange County solid waste landfill system would have the ability to accommodate the solid waste needs of the GPU buildout. Thus, impacts were determined to be less than significant.

Proposed Specific Plan Project

IMPACT UT-6: THE PROJECT WOULD NOT 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.

Less than Significant Impact.

Construction

Project construction would generate solid waste for landfill disposal in the form of demolition debris from the existing buildings and infrastructure that would be removed from the site. Demolition waste would be properly characterized as required by law and recycled or disposed of at an appropriate type of landfill for such materials. Construction waste in the form of packaging and discarded materials would also be generated by the proposed Project. Utilizing a construction waste factor of 4.34 pounds per square foot (USEPA 2003), development of the proposed Project would generate approximately 1,009 tons of waste during demolition of the buildings and additional waste during construction, which would occur in phases over a ten-year period. However, Section 5.408.1 of the 2022 California Green Building Standards Code requires demolition and construction activities to recycle or reuse a minimum of 65 percent of the nonhazardous construction and demolition waste. Thus, the demolition and construction solid waste that would be disposed of at the landfill would be approximately 35 percent of the waste generated. Therefore, demolition activities, which would generate the most solid waste would generate approximately 353 tons of solid waste, which would occur over time throughout the phased construction activities. In March 2023, the maximum tonnage received was 8,909.41 tons. Thus, the facility has additional capacity of 8,556.41 tons per day (CalRecycle 2023) and would be able to accommodate the construction solid waste from the proposed Project. Therefore, impacts related to landfill facilities from construction activities would be less than significant.

Operation

Per the GPU EIR, the City has a target disposal maximum rate of 7.5 pounds per capita per day and 16.9 pounds per employee per day. In 2021, the City had a disposal rate of 7 pounds per capita per day and 15.3 pounds per employee per day (CalRecycle 2023). The GPU FEIR provides waste generation factors of 12.23 pounds per household per day for residential uses and 0.043 pounds per SF per day for nonresidential uses.

Based on the GPU FEIR rates, operation of the proposed Project at buildout would generate approximately 25,913 tons of solid waste per year, at least 75 percent of which is required by California law to be recycled, which would reduce the volume of landfilled solid waste to approximately 7,734.8 tons per year, or 148.34 tons per week, as shown on Table 5.15-9.

Table 5.15-9: Solid Waste Demand from Operation of the Proposed Project

Land Use	Quantity	Generation Rate	Solid Waste Demand
Multi-Family Apartments	3,750 units	12.23 pounds/ household/ day	7,593.0 tons per year
Senior/Continuum of Care Units	200 units/ 225,000 SF	0.043 pounds/SF/day	17,656.9 tons per year
Commercial	350,000 SF	0.043 pounds/SF/day	2,746.6 tons per year
Hotel	250 rooms/ 150,000 SF	0.043 pounds/SF/day	1,177.1 tons per year
Special Care Facilities	225,000 SF/ 200 units	0.043 pounds/SF/day	1,765.7 tons per year
Total Solid Waste			30,939.3 tons per year
Annual Landfill Disposal with AB 341 (75% Reduction)			7,734.8 tons per year
Weekly Landfill Disposal with AB 341 (75% Reduction)			148.34 tons per week

Source: GPU FEIR

As described previously, the Frank Bowerman Sanitary Landfill is permitted to accept 11,500 tons per day of solid waste. In March 2023, the maximum tonnage received was 8,909 tons in a day. Thus, the facility had additional capacity of 2,591 tons per day (CalRecycle 2023). Therefore, the Frank Bowerman Sanitary Landfill would be able to accommodate the addition of 148.34 tons of waste per week generated by operation of the Project. Thus, the proposed Project would be served by a landfill with sufficient permitted capacity to accommodate the Project’s solid waste disposal needs and the proposed Project would not impair the attainment of solid waste reduction goals. Thus, impacts related to landfill capacity would be less than significant. Therefore, the proposed Project would be consistent with the findings of the GPU FEIR that the Orange County solid waste landfill system would have the ability to accommodate the GPU at buildout and that impacts would be less than significant.

IMPACT UT-7: THE PROJECT WOULD COMPLY WITH FEDERAL, STATE, AND LOCAL STATUTES AND REGULATIONS RELATED TO SOLID WASTE.

No Impact. The proposed Project would result in new development that would generate an increased amount of solid waste. All solid waste-generating activities within the City is subject to the requirements set forth in the Chapter 16 Article II of the City’s Municipal Code which reflects AB 1826 and SB 1383. The proposed Project would also be subject to Section 5.408.1 of the 2022 California Green Building Standards Code that requires demolition and construction activities to recycle or reuse a minimum of 65 percent of the nonhazardous construction and demolition waste, and AB 341 that requires diversion of a minimum of 75 percent of operational solid waste. Further, the proposed senior/continuum of care housing facility would be required to comply with the California Medical Waste Management Act for proper disposal of all medical waste, which would be ensured through the State’s medical permitting process. Implementation of the proposed Project would be consistent with all state regulations, as ensured through the City’s development project permitting process. Therefore, the proposed Project would comply with all solid waste statute and regulations; and impacts would not occur. Thus, the proposed Project is consistent with the findings of the GPU FEIR, which determined that development would be required to implement regulations related to solid waste and that impacts would be less than significant.

5.15.5.6 SOLID WASTE CUMULATIVE IMPACTS

The geographic scope of cumulative analysis for landfill capacity is the service area for the Frank Bowerman Sanitary Landfill, which serves the Project area. The projections of future landfill capacity based on the entire projected waste stream going to these landfills is used for cumulative impact analysis. As described previously, the Frank Bowerman Sanitary Landfill has a maximum permitted capacity of 11,500 tons per

day and in March 2023 had a maximum disposal of 8,909 tons and a remaining capacity of 2,591 tons per day (CalRecycle 2023). The 124.24 tons of solid waste per week from operation of the proposed Project would be 4.8 percent of the remaining daily capacity of the landfill. Due to this small percentage, the increase in solid waste from the proposed Project would be less than cumulatively considerable and would be less than significant.

5.15.5.7 EXISTING STANDARD CONDITIONS AND PLANS, PROGRAMS, OR POLICIES

The following standard regulations would reduce potential impacts related to solid waste:

- Assembly Bill 341 (Chapter 476, Statutes of 2011)
- Assembly Bill 1829 (Chapter 727, Statutes of 2014)
- California Green Building Standards Code
- California Senate Bill 1383
- California Medical Waste Management Act per California Health and Safety Code Sections 117600-118360,
- Santa Ana Municipal Code Chapter 16 Article II

5.15.5.8 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Impacts UT-6 and UT-7 would be less than significant.

5.15.5.9 SOLID WASTE MITIGATION MEASURES

GPU FEIR Mitigation Measures

No mitigation measures related to solid waste were included in the GPU FEIR.

Proposed Specific Plan Project Mitigation Measures

No new mitigation measures are required for the proposed Project.

5.15.5.10 SOLID WASTE LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant unavoidable adverse impacts related to solid waste would occur.

REFERENCES

Bristol Specific Plan Water Supply Assessment. Prepared by Fuscoe Engineering, Inc, 2023. (Appendix P).

California Regional Water Quality Control Board Santa Ana Region Waste Discharge Requirements and National Pollutant Discharge Elimination System Permit for Orange County Sanitation District (RWQCB 2023) Accessed at: <https://www.epa.gov/system/files/documents/2021-07/r8-2021-0010-ca0110604-oc-sanitation-district-2021-06-23.pdf>

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CalRecycle Jurisdiction Review Reports. Accessed at:
<https://www2.calrecycle.ca.gov/LGCentral/AnnualReporting/ReviewReports>

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<https://www2.calrecycle.ca.gov/SolidWaste/Site/Summary/2103>

City of Santa Ana Final Program Environmental EIR. Accessed: <https://www.santa-ana.org/general-plan-environmental-documents/>

City of Santa Ana General Plan. Accessed: <https://www.santa-ana.org/departments/general-plan/>

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Preliminary Geotechnical Investigation Report. 2022. Prepared by Group Delta Consultants, Inc. (Appendix G)

Preliminary Hydrology Report. Prepared by Fuscoe Engineering, 2023. Appendix L.

Preliminary Water Quality Management Plan. Prepared by Fuscoe Engineering, 2023. Appendix M.

Preliminary Water Quality Management Plan (WQMP) for the 24551 Raymond Way Project. Accessed: <https://ochcd.org/sites/hcd/files/import/data/files/116957.pdf>

Santa Ana River Basin Water Quality Control Plan (Basin Plan). Accessed at: https://www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan/

Santa Ana River Watershed: Accessed at: <http://www.ocwatersheds.com/programs/ourws/snariver>

Storm Drain Master Plan Drainage Assessment. Prepared by Fuscoe Engineering, Inc, 2023 (Appendix R)

Sewer Analysis Report Related Bristol Specific Plan. Prepared by Fuscoe Engineering, Inc, 2023. (Appendix Q).

State Water Resources Control Board Construction Water Program: Accessed at: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html

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