

UTILITIES AND SERVICE SYSTEMS

4.14 UTILITIES AND SERVICE SYSTEMS

This sub-chapter describes the existing utilities and service systems for Santa Rosa and evaluates the potential environmental consequences of future development that could occur by adopting and implementing the proposed project. Water supply, wastewater, solid waste, and energy conservation are each addressed in a separate section of this chapter. Stormwater as it relates to both water quality and capacity is addressed in Chapter 4.9, Hydrology and Water Quality, of this Draft EIR under impact discussion HYDRO-5. In each section, a summary of the relevant regulatory setting and existing conditions is followed by a discussion of the proposed project and cumulative impacts.

4.14.1 WATER

4.14.1.1 ENVIRONMENTAL SETTING

Regulatory Setting

State Regulations

California Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Control Act, which was passed in California in 1969 and amended in 2013, the State Water Resources Control Board (SWRCB) has authority over State water rights and water quality policy. This act divided the State into nine regional basins, each under the jurisdiction of a Regional Water Quality Control Board (RWQCB) to oversee water quality on a day-to-day basis at the local and regional level. RWQCBs engage in a number of water quality functions in their respective regions. RWQCBs regulate all pollutant or nuisance discharges that may affect either surface water or groundwater. Santa Rosa is overseen by the North Coast RWQCB.

California Urban Water Management Planning Act

Through the Urban Water Management Planning Act of 1983, the California Water Code (Division 6, Part 2.6, Sections 10610 through 10656) requires all urban water suppliers within California to prepare and adopt an urban water management plan and update it every five years. This requirement applies to all suppliers providing water to more than 3,000 customers or supplying more than 3,000 acre-feet¹ of water annually. The act is intended to support conservation and efficient use of urban water supplies. The act requires that total project water use be compared to water supply sources over the next 20 years in five-year increments, that planning occur for single- and multiple-dry water years, and that plans include a water recycling analysis that incorporates a description of the wastewater collection and treatment system within the agency's service area along with current and potential recycled water uses. In September 2014 the act was amended by Senate Bill (SB) 1420 to require urban water suppliers to provide descriptions of their water demand management measures and similar information.²

¹ Once acre-foot is the amount of water required to cover 1 acre of ground (43,560 square feet) to a depth of 1 foot.

² Department of Water Resources. About Urban Water Management, <http://www.water.ca.gov/urbanwatermanagement/>, accessed June 26, 2017.

UTILITIES AND SERVICE SYSTEMS

Groundwater Management Act (1992)

The Groundwater Management Act of the California Water Code (Assembly Bill [AB] 3030), signed into law on September 26, 1992, and effective on January 1, 1993, provides guidance for applicable local agencies to develop voluntary Groundwater Management Plans (GMP) in State-designated groundwater basins. The GMPs can allow agencies to raise revenue to pay for measures influencing the management of the basin, including extraction, recharge, conveyance, facilities' maintenance, and water quality.³

Sustainable Groundwater Management Act (2014)

The Sustainable Groundwater Management Act of 2014 (SGMA) consists of three legislative bills, Senate Bill (SB) 1168, AB 1739, and SB 1319. The legislation provides a framework for long-term sustainable groundwater management across California. Under the roadmap laid out by the legislation, local and regional authorities in medium and high priority groundwater basins will form Groundwater Sustainability Agencies (GSAs) that oversee the preparation and implementation of a local Groundwater Sustainability Plan (GSP). The City of Santa Rosa is a member of the Santa Rosa Plain GSA formed on June 1, 2017.⁴ Groundwater Sustainability Plans will have to be developed and in place by 2022. GSAs will have until 2040 to achieve groundwater sustainability.⁵

Water Conservation Act of 2009

The Water Conservation Act of 2009,⁶ SB X7-7, requires all water suppliers to increase water use efficiency. The legislation sets an overall goal of reducing statewide per capita water by 20 percent by 2020, with an interim goal of a 10 percent reduction in statewide per capita water use by 2015. Effective in 2016, urban retail water suppliers that do not meet the water conservation requirements established by this bill are not eligible for state water grants or loans. The SB X7-7 requires that urban water retail suppliers determine baseline water use and set reduction targets according to specified standards.

State Updated Model Water Efficient Landscape Ordinance

The updated Model Water Efficient Landscape Ordinance requires cities and counties to adopt updated water efficient landscape ordinances by February 1, 2016 or to adopt a different ordinance that is at least as effective in conserving water as the updated Model Ordinance. The Water Efficient Landscape Policy was initially adopted by Resolution No. 21142 of the Santa Rosa City Council on December 22, 1992 and was replaced by the Santa Rosa City Code Chapter 14-30, Water Efficient Landscape, ordinance which initially went into effect in January 2010 and was revised and adopted in October 2015 and January 2016.⁷

³ Department of Water Resources Planning and Local Assistance Central District, Groundwater, *Groundwater Management*, <http://www.cd.water.ca.gov/groundwater/gwab3030.cfm>, accessed on June 26, 2017.

⁴ Department of Water Resources, Sustainable Groundwater Management Act, Formation Notification System, <http://sgma.water.ca.gov/portal/gsa/print/331>, accessed on June 26, 2017.

⁵ UC Davis, Division of Agriculture and Natural Resources, 2014. Groundwater web page, <http://groundwater.ucdavis.edu/SGMA/>, accessed on June 26, 2017.

⁶ Department of Water Resources, Senate Bill SBX7-7 2009 Information, <http://www.water.ca.gov/wateruseefficiency/sb7/>, accessed on June 26, 2017.

⁷ City of Santa Rosa, July 2007, Water Efficient Landscape Policy, <http://srcity.org/documentcenter/view/8472>

UTILITIES AND SERVICE SYSTEMS

California Building Code: CALGreen

On July 17, 2008, the California Building Standards Commission adopted the California Green Building Standards Code (Part 11, Title 24, known as “CALGreen”) as part of the California Building Standards Code (Title 24, California Code of Regulations). CALGreen applies to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure, unless otherwise indicated in the code, throughout the State of California. CALGreen established planning and design standards for sustainable site development, including water conservation measures and requirements that new buildings reduce water consumption by 20 percent. The mandatory provisions of the CALGreen Standards became effective January 1, 2011 and are enforced through the local building permit process. The purpose of CALGreen is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices in water efficiency and conservation, amongst others. The City of Santa Rosa has adopted all sections of the California Code of Regulations Title 24, Part 11, in SRCC Chapter 18-42, Citation of California Green Building Standards Code.

California Plumbing Code

The California Plumbing Code (Part 5, Title 24, CCR) was adopted as part of the California Building Standards Code. The general purpose of the universal code is to prevent disorder in the industry as a result of widely divergent plumbing practices and the use of many different, often conflicting, plumbing codes by local jurisdictions. Among many topics covered in the code are water fixtures, potable and non-potable water systems, and recycled water systems. Water supply and distribution shall comply with all applicable provisions of the current edition of the California Plumbing Code.

Local Regulations

Sonoma County Water Agency

The Sonoma County Water Agency (SCWA) is the water wholesaler for the County. The SCWA provides 90 to 95 percent of the City’s potable water supply through a service agreement with the City.⁸ In addition to Santa Rosa, the SCWA supplies water to the cities of Rohnert Park, Petaluma, Cotati, Sonoma, the Town of Windsor, the North Marin Water District, and the Valley of the Moon Water District.

Urban Water Management Plan

The City’s 2015 Urban Water Management Plan (UWMP) was prepared in accordance with the Urban Water Management Planning Act previously described. The 2015 UWMP addresses the City’s water system and includes a description of the water supply sources, historical and projected water use, and a comparison of water supply to water demands during normal, single-dry, and multiple-dry years. The 2015 UWMP also addresses water use efficiency legislation, including the City’s 2015 and 2020 water use targets, as required by the Water Conservation Act, and the implementation plan for meeting the City’s 2020 water use targets.⁹

⁸ City of Santa Rosa Water, 2015 Urban Water Management Plan, Chapter 6, System Supplies, page 6-1.

⁹ City of Santa Rosa Water, 2015 Urban Water Management Plan, Executive Summary, page ES-1.

UTILITIES AND SERVICE SYSTEMS

Groundwater Master Plan

Adopted by the Santa Rosa Board of Public Utilities on September 19, 2013, the overall objective of the Groundwater Management Plan (GWMP) is to provide a strategic road map for the City's Utilities staff, Board of Public Utilities, and City Council regarding how available groundwater resources could be most effectively used to meet the needs of the City's existing and future customers. The GWMP documents the need for additional emergency groundwater supply wells to provide for water service to residents in the event of an emergency. The Emergency Groundwater Supply Program, which seeks to design and construct new emergency wells as part of implementing the GWMP, is actively seeking to construct emergency groundwater supply facilities in the Southeast Greenway Area due to a successful test well in Southeast Greenway Area near Martha Way.

General Plan 2035

The Public Services and Facilities (PSF) element of the General Plan 2035 include the following goals and policies specific to water resources and applicable to the proposed project:

- **Goal PSF-F:** Ensure that an adequate supply of water is available to serve existing and future needs of the city.
 - **Policy PSF-F-1:** Utilize high quality water from the Sonoma County Water Agency (SWCA) aqueduct system as the primary water supply.
 - **Policy PSF-F-2:** Ensure that water supply capacity and infrastructure are in place prior to occupancy of new development.
 - **Policy PSF-F-3:** Develop available groundwater resources for the purpose of providing a supplemental source of water in the event of an emergency.
 - **Policy PSF-F-4:** Maintain existing levels of water service by preserving and improving infrastructure, replacing water mains as necessary, and improving water transmission lines.

Santa Rosa City Code

Chapter 14-30, Water Efficient Landscape

The SRCC includes Chapter 14-30, Water Efficient Landscape, which ensures efficient water use by establishing standards for landscape design appropriate to Santa Rosa's climate, soils, water resources, land use and resource planning. The Water Efficient Landscape Policy was initially adopted by Resolution No. 21142 of the Santa Rosa City Council on December 22, 1992 and was replaced by the Water Efficient Landscape Ordinance which initially went into effect in January 2010 and was revised and adopted in October 2015 and January 2016.¹⁰ The chapter applies to all new projects, public and private, with landscaping that require conditional use permit or design review by the City, or a Utilities certificate. This includes office, commercial, industrial, and institutional landscaping; park and greenbelt landscaping; developer-installed landscaping in multiple-family residential and common areas of single-family residential developments.

¹⁰ City of Santa Rosa. July 2007. Water Efficient Landscape Policy. <http://srcity.org/documentcenter/view/8472>

UTILITIES AND SERVICE SYSTEMS

Chapter 18-42, Citation of California Green Building Standards Code

The SRCC includes provisions that apply to buildings with regards to water conservation measures. On July 17, 2008, the California Building Standards Commission adopted the California Green Building Standards Code (Title 24, Part 11, known as “CALGreen”) as part of the California Building Standards Code (Title 24, California Code of Regulations). The City of Santa Rosa has adopted all sections of the California Code of Regulations Title 24, Part 11, in SRCC Chapter 18-42, Citation of California Green Building Standards Code.

Climate Action Plan

On June 5, 2012, the Santa Rosa City Council adopted the Climate Action Plan (CAP), which is discussed in greater detail in Chapter 4.6, Greenhouse Gas Emissions, of this Draft EIR. The CAP recommends various community and municipal measures for near-term and mid-term considerations organized in nine topic areas, including water conservation. The CAP contains the following goals, measures, and actions that are applicable to the proposed project:

- **Goal 7: Water and Wastewater.** Improve the efficiency of wastewater and water operations in Santa Rosa, and continue to develop a diversified water supply portfolio, including water conservation and recycled water, in order to enhance water supply reliability.
 - **Measure 7.1: Water Conservation.** Continue to require and incentivize water conservation.
 - **Action 7.1.1:** Require new development to reduce potable water use in accordance with the Tier 1 standards of CALGreen.
 - **Action 7.1.2:** Continue and expand water conservation efforts including water-efficient landscaping, rainwater harvesting, and high-efficiency appliance and fixture installations.
 - **Action 7.1.3:** Replace water meters in Santa Rosa with meters that allow residents and businesses to track real-time water use through the City's online web application.
 - **Action 7.1.4:** Encourage existing development and require new development to utilize smart water meters to facilitate water and cost savings.
 - **Measure 7.2: Wastewater and Water Operations.** Improve the efficiency of water and wastewater facilities and operations serving the Santa Rosa community.
 - **Action 7.2.1:** Continue to provide recycled water to the Geysers project to generate clean energy.
 - **Action 7.2.2:** Continue to develop and install innovative renewable energy projects at the Laguna Treatment Plant.
 - **Measure 7.3: Recycled Water.** Increase the use of recycled water in Santa Rosa.
 - **Action 7.3.1:** Expand the infrastructure network to deliver recycled water for use at businesses, city parks and facilities, and common area residential landscapes.
 - **Action 7.3.2:** Require new development in zones anticipated to receive future recycled water to meet on-site meter separation requirements to allow for the use of recycled water.

UTILITIES AND SERVICE SYSTEMS

Existing Conditions

Water Supply Sources

The City's Water Department is the water purveyor for residential and commercial, industrial and institutional customers within the City boundaries. The Water Department obtains 90 to 95 percent of its water supply through a service agreement with the SCWA.¹¹ In addition to Santa Rosa, the SCWA supplies water to the cities of Rohnert Park, Petaluma, Cotati, Sonoma, the Town of Windsor, the North Marin Water District, and the Valley of the Moon Water District. The SCWA's primary water supply source is the Russian River. The SCWA manages water releases at the Coyote Valley Dam and Warm Springs Dam to provide adequate water supply and to maintain the required minimum flows in the Russian River. The SCWA collects water from two intake sites located near Forestville and delivers water to Santa Rosa via the Santa Rosa and Sonoma Aqueducts. The SCWA is authorized to divert a maximum of 75,000 acre-feet of water per year (AFY)¹² at a diversion rate of 180 cubic feet per second.¹³ Per the service agreement,¹⁴ Santa Rosa is entitled to 29,100 AFY through June 30, 2040.¹⁵ Prior to distribution, the SCWA adds chlorine to its water supplies to provide residual disinfection throughout its distribution system and tests its water frequently to ensure the quality meets all required state and federal standards for potable drinking water.¹⁶

In addition to surface water supplied by the SCWA, the City maintains a total of two municipal groundwater production wells within the Santa Rosa Plain subbasin of the Santa Rosa Valley Groundwater Basin.¹⁷ These wells are permitted for regular production of potable water and supply the City up to 2,300 AFY for consumption.¹⁸ Groundwater extracted from the City's two production wells meets primary drinking water standards for municipal use. Because these wells have historically exhibited slightly elevated concentrations of both iron and manganese that exceed secondary drinking water standards for taste and odor, the City constructed and operates an on-site treatment system to remove these elements prior to introducing the groundwater to the City's water distribution system.¹⁹

The City of Santa Rosa Water Department is responsible for the operation and management of the Subregional Water Reclamation System (Subregional System) for more than 225,000 residents and 6,500 businesses in Cotati, Rohnert Park, Santa Rosa, and Sebastopol, the South Park Sanitation District and portions unincorporated Sonoma County.²⁰ The Subregional System includes the Laguna Wastewater Treatment Plant (Laguna WTP), the Industrial Pretreatment Program, and the recycled water system. The Subregional System has recycled all of its treated wastewater in the past several years, with the vast majority being used for the Geysers Recharge Project. The City has recently used approximately 140 AFY

¹¹ City of Santa Rosa Water, 2015 Urban Water Management Plan, Chapter 6, System Supplies, page 6-1.

¹² An acre-foot is the equivalent of 325,850 gallons of water.

¹³ City of Santa Rosa Water, 2015 Urban Water Management Plan, Chapter 6, System Supplies, page 6-2.

¹⁴ Sonoma County Water Agency, Restructured Agreement for Water Supply, http://www.scwa.ca.gov/files/docs/about-us/wac/signed_restructured_supply_agreement.pdf, accessed on June 26, 2017.

¹⁵ City of Santa Rosa Water, 2015 Urban Water Management Plan, Chapter 6, System Supplies, page 6-3.

¹⁶ Sonoma County Water Agency, 2015 Urban Water Management Plan, Section 6, Water Supply Reliability, page 6-1.

¹⁷ City of Santa Rosa Water, 2015 Urban Water Management Plan, Chapter 6, System Supplies, page 6-4.

¹⁸ City of Santa Rosa Water, 2015 Urban Water Management Plan, Chapter 6, System Supplies, page 6-3.

¹⁹ City of Santa Rosa Water, 2015 Urban Water Management Plan, Chapter 7, Water Supply Reliability Assessment, page 7-8.

²⁰ City of Santa Rosa Water, 2015 Urban Water Management Plan, Chapter 6, System Supplies, page 6-12.

UTILITIES AND SERVICE SYSTEMS

of recycled water for urban landscape irrigation within its jurisdiction and is not currently planning to expand the recycled water system within the City water service area for the duration of the planning period of this 2015 UWMP.²¹

In summary, the City has a total of 31,540 AFY existing and projected water supplies available through 2040.

Water Demand

The City describes water use by customer type, or sector, through the year 2040. The City currently delivers water to the following sectors: single-family, multi-family, commercial, industrial, institutional, and landscape irrigation customers. The remaining demand not accounted for within these sectors is captured in the distribution system loss sector. As of December 2015, the City served 53,193 water customers. Of those, 89 percent are residential customers while approximately 5 percent are commercial, institutional, or industrial customers. Actual water demand for the year 2015 was 16,539 AFY. Projected water demand through the year 2040 is shown in Table 4.14-1 below.

TABLE 4.14-1 TOTAL EXISTING AND PROJECTED WATER DEMANDS (AFY)

| | 2015 ^a | 2025 | 2035 | 2040 |
|----------------|-------------------|---------------|---------------|---------------|
| Potable Water | 16,539 | 25,590 | 28,103 | 28,140 |
| Recycled Water | 140 | 140 | 140 | 140 |
| Total | 16,679 | 25,730 | 28,243 | 28,280 |

Note: Projected water use is shown reported in acre-feet per year (AFY); An acre-foot is the equivalent of 325,850 gallons of water.

a: The 2015 values represent actual water demand for the year 2015.

Source: City of Santa Rosa Water, 2015 Urban Water Management Plan, Table 4-5, Total Water Demands, page 4-4.

As shown in Table 4.14-1, projected water demands for the city are expected to slightly increase through the year 2040.

4.14.1.2 STANDARDS OF SIGNIFICANCE

Implementation of the proposed project would have a significant impact on water service if:

1. There were insufficient water supplies available to serve the project from existing entitlements and resources, or if new or expanded entitlements were needed.
2. It would require or result in the construction of new water facilities or expansion of existing facilities, the construction of which would cause significant environmental effects.

²¹ City of Santa Rosa Water, 2015 Urban Water Management Plan, Executive Summary, page ES-2.

UTILITIES AND SERVICE SYSTEMS

4.14.1.3 IMPACT DISCUSSION

UTIL-1 Implementation of the proposed project would have sufficient water supplies available to serve the proposed project from existing entitlements and resources, and would not require new or expanded entitlements.

As described above, the City has a total of 31,540 AFY existing and projected water supplies available through 2040. As shown on Table 4.14-1 above, the projected water demand for the General Plan 2035 horizon year 2035 is 28,243 AFY. Accordingly, the City would have a total of 3,297 AFY of potable water available for future projects.²² As described in Chapter 3, Project Description, of this Draft EIR, implementation and adoption of the proposed project would result in up to up to 47.2 acres of park and recreational uses including open space, 244 multi-family housing units, and 12,000 square feet of commercial space. The proposed project’s projected water demand was calculated using the water demand factors included in the 2014 Water Master Plan Update.²³ The projected water demand for the proposed project is shown in Table 4.14-2 below.

TABLE 4.14-2 PROPOSED PROJECT WATER DEMAND (AFY)

| Land Use | Water Demand |
|-----------------------------------|---------------|
| Parks and Recreation ^a | 19 |
| Multi-Family Housing ^b | 16 |
| Commercial ^c | 0.5 |
| Total Water Demand | 36 AFY |

Notes: AFY = acre-feet per year.

An acre-foot is the equivalent of 325,850 gallons of water.

a: The parks and recreation water demand was calculated using the recommended unit water demand factor of 0.4 acre-foot/acre/year for the Low/Open Space Land Use designation.

b: The multi-family housing water demand was calculated using the recommended unit water demand factor of 211 gallons/unit/day for the Medium Density residential Land Use designation, and then converted to AFY.

c: The commercial water demand was calculated using the recommended unit water demand factor of 1.8 acre-feet/acre/year for the Retail/Med Residential Land Use designation.

Source: City of Santa Rosa, 2014 Water Master Plan Update, Executive Summary, Table ES-4, page ES-7.

As shown on Table 4.14-2, the projected water demand for the proposed project would be 36 AFY. Given that the City would have 3,297 AFY of potable water available for future projects in 2035, sufficient water supplies would be available to serve the proposed project and impacts would be *less than significant*. In addition, the General Plan 2035 also includes policies (listed above) which require that an adequate amount of water supply be available to serve existing and future needs of the city. The proposed project would also be required to comply with the standards for water efficient landscape design included in SRCC Chapter 14-30 in an effort to reduce water consumption in the city. To supplement these existing

²² 31,540 AFY existing water supplies – 28,243 AFY 2035 projected water demand = 3,297 AFY water available.

²³ City of Santa Rosa, 2014 Water Master Plan Update, Executive Summary, Table ES-4, Summary of Water Demand Projections for Private Water Systems and Vacant Parcels, page ES-7.

UTILITIES AND SERVICE SYSTEMS

regulations, the proposed project includes proposed Policy LUL-NN-3, which requires increase stormwater infiltration and groundwater recharge, which will ultimately improve water supply conditions in the region. Consistency with these regulations and additional water from groundwater wells would ensure that future development under the proposed project would reduce impacts to the City's water supply. Furthermore, as part of the City's Emergency Groundwater Supply Program implementation discussed in the GWMP, the City would seek to design and construct emergency wells and associated facilities in the Southeast Greenway Area due to a successful test well in the Southeast Greenway Area near Martha Way.

Significance Without Mitigation: Less than significant.

UTIL-2 Implementation of the proposed project would not require or result in the construction of new water facilities or expansion of existing facilities, the construction of which would cause significant environmental effects.

The City obtains 90 to 95 percent of its water supply through a service agreement with the SWCA.²⁴ Prior to delivery, the SCWA adds chlorine to its water supplies to provide residual disinfection throughout its distribution system and tests its water frequently to ensure the quality meets all drinking water standards.²⁵ In addition to surface water supplied by the SWCA, the City maintains a total of two municipal groundwater production wells within the Santa Rosa Plain subbasin of the Santa Rosa Valley Groundwater Basin.²⁶ Groundwater extracted from the City's two production wells meets primary drinking water standards for municipal use. Because these wells have historically exhibited slightly elevated concentrations of both iron and manganese that exceed secondary drinking water standards for taste and odor, the City constructed and operates an on-site treatment system to remove these elements prior to introducing the groundwater to the City's water distribution system.²⁷

As described under impact discussion UTIL-1, the proposed project's water demand would not exceed the available potable water in the city for the year 2035. As such, the project would not require the SCWA or the City to treat additional water beyond what is currently anticipated and would therefore, not prompt the need to expand treatment facilities in order to meet the demands. In addition, the General Plan 2035 includes policies (listed above) that would require the continued improvement and maintenance of water infrastructure. Accordingly, impacts would be *less than significant*.

Significance Without Mitigation: Less than significant.

²⁴ City of Santa Rosa Water, 2015 Urban Water Management Plan, Chapter 6, System Supplies, page 6-1.

²⁵ Sonoma County Water Agency, 2015 Urban Water Management Plan, Section 6, Water Supply Reliability, page 6-1.

²⁶ City of Santa Rosa Water, 2015 Urban Water Management Plan, Chapter 6, System Supplies, page 6-4.

²⁷ City of Santa Rosa Water, 2015 Urban Water Management Plan, Chapter 7, Water Supply Reliability Assessment, page 7-8.

UTILITIES AND SERVICE SYSTEMS

4.14.1.4 CUMULATIVE IMPACTS

| | |
|--------|--|
| UTIL-3 | Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to water service. |
|--------|--|

The cumulative impact for water service is considered in the context of the growth from potential future development under the proposed project combined with the estimated growth in the SCWA service area. The SCWA supplies water to Rohnert Park, Petaluma, Cotati, Sonoma, the Town of Windsor, the North Marin Water District, and the Valley of the Moon Water District.

While the proposed project would contribute to an increase in the cumulative demand for water supply, the increased demand would not exceed Santa Rosa's existing and projected water supplies as described above. In addition, per the service agreement, each jurisdiction in the SCWA service is entitled to their respective water allotments through June 30, 2040.²⁸ In addition, with SB X7 7 and the State, county, and local water conservation ordinances in place, each jurisdiction would be required to conserve its water use through establishing water efficiency measures. Therefore, the cumulative water demands would not exceed planned levels of supply beyond what is currently planned and cumulative impacts would be *less than significant*.

Significance Without Mitigation: Less than significant.

4.14.2 SANITARY WASTEWATER (SEWER)

4.14.2.1 ENVIRONMENTAL SETTING

Regulatory Setting

Federal Regulations

Clean Water Act

The Federal Water Pollution Act of 1972, more commonly known as the Clean Water Act, regulates the discharge of pollutants into watersheds throughout the nation. It is the primary federal law governing water pollution. Under the Clean Water Act, the United States Environmental Protection Agency (USEPA) implements pollution control programs and sets wastewater standards. The objective of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of the nation's waters by preventing point and nonpoint pollution sources, providing assistance to publicly owned treatment works for the improvement of wastewater treatment, and maintaining the integrity of wetlands.

²⁸ Sonoma County Water Agency, Restructured Agreement for Water Supply, http://www.scwa.ca.gov/files/docs/about-us/wac/signed_restructured_supply_agreement.pdf, accessed on June 26, 2017.

UTILITIES AND SERVICE SYSTEMS

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established in the Clean Water Act to regulate municipal and industrial discharges to surface waters of the United States. Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify effluent and receiving water limits on allowable connections and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities. Wastewater discharge is regulated under the NPDES permit program for direct discharges into receiving waters and by the National Pretreatment Program for indirect discharges to a sewage treatment plant.

State Regulations

State Water Resources Control Board

On May 2, 2006 the SWRCB adopted a General Waste Discharge Requirement (Order No. 2006-0003) for all publicly owned sanitary sewer collection systems in California with more than 1 mile of sewer pipe. The order provides a consistent statewide approach to reducing sanitary sewer overflows by requiring public sewer system operators to take all feasible steps to control the volume of waste discharged into the system, to prevent sanitary sewer waste from entering the storm sewer system, and to develop a Sanitary Sewer Master Plan. The General Waste Discharge Requirement also requires that sanitary sewer overflows be reported to the SWRCB using an online reporting system. The SWRCB has delegated authority to the North Coast RWQCB, which issues and enforces NPDES permits applicable to the Laguna WTP wastewater collection system in Santa Rosa (discussed further below).

Sanitary District Act of 1923

The Sanitary District Act of 1923 (Health and Safety Code Section 6400 et seq.) authorizes the formation of sanitation districts and enforces the districts to construct, operate, and maintain facilities for the collection, treatment, and disposal of wastewater. The act was amended in 1949 to allow the districts to also provide solid waste management and disposal services, including refuse transfer and resource recovery.

Local Regulations

General Plan 2035

The Public Services and Facilities (PSF) element of the General Plan 2035 includes the following goal and policies specific to wastewater and applicable to the proposed project:

- **Goal PSF-G:** Ensure that adequate sewer capacity is available to serve existing and future needs of the city.
 - **Policy PSF-G-1:** Continue to explore and develop new uses for treated wastewater, including expanding existing programs such as urban and agricultural irrigation, consistent with objectives

UTILITIES AND SERVICE SYSTEMS

adopted by the Board of Public Utilities and the City Council. Examples of urban reuse include park and landscaping irrigation.

- **Policy PSF-G-2:** Maintain existing levels of wastewater service by preserving and improving infrastructure, including replacing sewer mains as necessary.

Sanitary Sewer System Master Plan Update

The City's 2014 *Sanitary Sewer System Master Plan Update* was prepared to support the management, operation, capital improvements to the City of Santa Rosa sewer collection system. The 2014 *Sanitary Sewer System Master Plan Update* provides a summary of the Santa Rosa sewer system, a model analyses of existing infrastructure, and identifies recommended improvements designed to meet the City's level of service requirements for the sewer collection system.²⁹

Climate Action Plan

As described in Section 4.14.1, Water Supply, the City's CAP recommends various community and municipal measures for near-term and mid-term considerations organized in nine topic areas, including wastewater facilities and use. The goals, measures, and actions in the CAP that are related to wastewater facilities and use are listed in Section 4.14.1 above.

Existing Conditions

The City serves as the wastewater provider within the Southeast Greenway Area. As such, the City is responsible for operation and maintenance of the collection system. Wastewater is collected from individual services into the City's collection system.

In general, a wastewater system is comprised of two facets: 1) treatment/disposal and allocation capacity and 2) collection (mains and pump/lift stations). Below is a discussion of each of these facets as it relates to the proposed project.

Treatment/Disposal and Allocation Capacity

As described in existing conditions in Section 4.14.1, Water Supply, the City of Santa Rosa Water Department is responsible for the operation and management of the Subregional System that operates the Laguna WTP. Sewage generated from residential, commercial and industrial uses within the city is collected for treatment and disposal, and transported to the Laguna WTP. The wastewater conveyed to the Laguna WTP undergoes three stages of treatment prior to disinfection, storage, and reuse. Santa Rosa contributes approximately 75 percent of the wastewater quantity.³⁰

Operation of the Laguna WTP and its wastewater collection system is regulated by Waste Discharge Requirements found in the North Coast RWQCB Order No. R1-2002-0053. The Laguna WTP has the capacity to treat a maximum of 56 MGD; however, the NPDES permit is only permitted to treat up to 21.34 MGD. The average daily dry weather flow for the Laguna WTP is 16.5 MGD.

²⁹ City of Santa Rosa, *Sanitary Sewer System Master Plan Update*, October 2014, Chapter 1, Introduction, page 6.

³⁰ City of Santa Rosa Water, 2015 Urban Water Management Plan, Chapter 6, System Supplies, page 6-12.

UTILITIES AND SERVICE SYSTEMS

Reuse and disposal of all advanced treated water is accomplished through a system that combines water reclamation with discharge to surface waters during the allowable discharge period (October 1 through May 15). The primary point of discharge is via Delta Pond at the confluence of Santa Rosa Creek and the Laguna de Santa Rosa. Discharge cannot exceed 5 percent of the Russian River flow.³¹

Collection

The wastewater collection system consists of 590 miles of sanitary sewer lines, ranging in size from 6 to 66 inches in diameter, and includes 17 sewer lift stations. Wastewater flow is generally routed from northeast to southwest and delivered to the Laguna WTP.³² As shown in the *Southeast Greenway Existing Conditions, Opportunities, and Constraints* document prepared for the project site, the Southeast Greenway Area is surrounded by an urban environment that is well served by existing sewer infrastructure including, but not limited to, sewer mains along Hoen Avenue, Vallejo Street, Cypress Way, Franquette Avenue, Wanda Way, Yulupa Avenue, Spring Creek Diversion located within the right of way, Sierra Creek Lane, Summer Lane, and Slate Drive (See Appendix I, Existing Conditions, of this Draft EIR). As discussed in the 2014 *Sanitary Sewer System Master Plan Update*, the Los Alamos Trunk Sewer, Cross Town Trunk Sewer, and Airport Trunk Sewer require upgrades in order to meet the City's minimum level of service requirements. The Cross Town Trunk Sewer would serve the project site. This trunk runs from Mission Boulevard to Surrey Drive and would convey the wastewater received from the existing sewer infrastructure along the Southeast Greenway Area to the Laguna WTP for treatment.³³ Specifically, the Cross Town Trunk Sewer begins at the high flow diversion facility at the City's municipal yard on Stony Point road and ends on the north side of Santa Rosa Creek at the junction of the Rincon Valley and Los Alamos Trunks.³⁴

4.14.2.2 STANDARDS OF SIGNIFICANCE

Implementation of the proposed project would have a significant impact on wastewater service if it would:

1. Exceed wastewater treatment requirements of the applicable RWQCB.
2. 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.
3. Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

³¹ City of Santa Rosa Water, 2015 Urban Water Management Plan, Chapter 6, System Supplies, page 6-14.

³² City of Santa Rosa, Sanitary Sewer System Master Plan Update, October 2014, Chapter 1, Introduction, page 8.

³³ City of Santa Rosa, Sanitary Sewer System Master Plan Update, October 2014, Chapter 6, Capital Improvement Update, pages 69 to 74.

³⁴ Amidon, Norman, Associate Civil Engineer, Santa Rosa Water Department, Personal communication with PlaceWorks, August 11, 2017.

UTILITIES AND SERVICE SYSTEMS

4.14.2.3 IMPACT DISCUSSION

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| UTIL-4 | Implementation of the proposed project would not exceed wastewater treatment requirements of the North Coast Regional Water Quality Control Board. |
|---------------|---|

As discussed in Chapter 3, Project Description, of this Draft EIR, the proposed project does not include any industrial land uses. The proposed park and recreational uses, multi-family residential, and commercial uses that would result from the adoption and implementation of the proposed project would not generate wastewater of different quality and treatability than that generated by current land uses in the city. The Laguna WTP is currently in compliance with its NDPES permit requirements. As such, potential future development under the proposed project would not be expected to generate wastewater that would exceed the treatment requirements of the North Coast RWQCB. In addition, the proposed project would be required to comply with State and local regulations (listed above) to ensure that wastewater generated would not exceed the treatment requirements of the North Coast RWQCB. Therefore, the proposed project would result in a *less-than-significant* impact.

Significance Without Mitigation: Less than significant.

| | |
|---------------|--|
| UTIL-5 | Implementation of the proposed project would not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects. |
|---------------|--|

As described in the existing conditions section above, the Laguna WTP is permitted to treat up to 21.34 MGD and has an average daily dry weather flow of 16.5 MGD. Accordingly, the Laguna WTP has a remaining capacity to receive and process 4.8 MGD.³⁵ As described above under impact discussion UTIL-1, projected water demand for the proposed project would be 36 AFY or 0.032 MGD.³⁶ As shown on Table 4.14-2, the water demand for the proposed project was calculated based on the proposed land uses. It is unlikely that the wastewater generated by the increase in water demand for the proposed park and recreational land uses would be conveyed to the Laguna WTP given that the proposed park and recreational areas would be primarily made up of pervious surfaces. However, for a conservative approach, this analysis assumes 90 percent of the net increase in water demand for the proposed project would become wastewater. Therefore the proposed project would generate 0.029 MGD of wastewater.³⁷ This represents less than 1 percent (0.6) of the remaining Laguna WTP capacity.³⁸ While the increase in wastewater flows from implementation of the proposed project would add to the capacity demands on the Laguna WTP, the amount of wastewater generated would not exceed the remaining capacity and no

³⁵ 21.34 MGD permitted capacity – 16.5 average daily dry weather flow = 4.8 MGD remaining capacity.

³⁶ (36 AFY/365 days per year = 0.099 acre-feet per day[AFD])
(0.099 AFD X 325,850 gallons per acre foot = 32,138 gallons per day)
(32,138/1,000,000 = 0.0321 MGD).

³⁷ 0.0321 MGD water demand x 0.9 = 0.029 wastewater generated.

³⁸ (0.029 wastewater generated/4.8 MGD remaining capacity) x 100 = 0.6 percent of the remaining capacity.

UTILITIES AND SERVICE SYSTEMS

new wastewater treatment facility would need to be constructed and no expansion of the Laguna WTP would be required.

With respect to the City's wastewater collection system, as discussed in the existing conditions section above, the Cross Town Trunk that would serve the Southeast Greenway Area requires upgrades in order to meet the City's minimum level of service requirements under existing conditions. Therefore, because the Southeast Greenway Area was not identified for development in the City's General Plan, any potential added flow from future development in the Southeast Greenway Area was not incorporated into the City's current 2014 *Sanitary Sewer System Master Plan Update*. Accordingly, potential future development under the proposed project could exacerbate this existing condition and capacity improvements to the collection system and the Cross Town Trunk may be required. As part of the City's project approval process, future project developers in the Southeast Greenway Area, as with other development projects in the city, would be required to demonstrate project-specific impacts to the wastewater collection system, including the Cross Town Trunk, that may require upsizing or mitigating potential project-specific impacts. Future project developers would also be required to pay the City's wastewater fees for connecting to the sewer system to offset their fair share of impacts to the City's wastewater conveyance system. This EIR is a program-level document and does not evaluate the specific details associated with the installation of future utilities. Once utility and pipelines projects are planned and the details are known, additional environmental review may be required. Furthermore, the General Plan 2035 includes policies (listed above) such as Policy PSF-G-2, which requires the maintenance of existing levels of wastewater service by preserving and improving infrastructure, including replacing sewer mains as necessary to ensure existing levels of wastewater service are available. For these reasons, the proposed project would result in a *less-than-significant* impact with respect to the need for new or expanded wastewater collection facilities and its conveyance system.

Significance Without Mitigation: Less than significant.

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| UTIL-6 | Implementation of the proposed project would not result in the determination by the wastewater treatment provider, which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. |
|---------------|---|

As described under impact discussion UTIL-5 above, the Laguna WTP has adequate capacity to serve the proposed new development potential under the proposed project; however, there are known deficiencies under existing conditions in the Cross Town Trunk that serves the Southeast Greenway Area. Future project developers would be required to demonstrate project-specific impacts to the wastewater collection system, including any potential impacts to the Cross Town Trunk. Because this EIR is a program-level document, it does not evaluate the specific details associated with the installation of future utilities. Once utility and pipelines projects are planned and the details are known, additional project-specific environmental review may be required. The development of improved wastewater collection systems could cause significant environmental effects; however, compliance with applicable regulations, as discussed above, and project-level environmental review would serve to evaluate and mitigate potential adverse physical effects from future project-level development. This combined with the ongoing compliance with General Plan 2035 Policy PSF-G-2, which requires the maintenance of existing levels of

UTILITIES AND SERVICE SYSTEMS

wastewater service by preserving and improving infrastructure, including replacing sewer mains as necessary, and payment of City's wastewater fees for connecting to the sewer system to offset their fair share of impacts to the City's wastewater conveyance system would ensure impacts would be *less than significant*.

Significance Without Mitigation: Less than significant.

4.14.2.4 CUMULATIVE IMPACTS

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| UTIL-7 | Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects would result in less-than-significant cumulative impacts with respect to wastewater service. |
|--------|--|

The cumulative impact for wastewater is considered in the context of the growth from potential future development under the proposed project combined with the estimated growth in the Laguna WTP service area. The Laguna WTP serves Cotati, Rohnert Park, Sebastopol, and the South Park Sanitation District.

While the proposed project would contribute to an increase in the cumulative demand for wastewater treatment, the increase represents less than 1 percent (0.5) of the remaining Laguna WTP capacity.³⁹ As described above, the proposed project would not exceed wastewater treatment requirements of the North Coast RWQCB and would not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities. In addition, the Laguna WTP has adequate capacity to treat the wastewater generated by the proposed project. Accordingly, cumulative impacts to sanitary wastewater service would be *less than significant*.

Significance Without Mitigation: Less than significant.

4.14.3 SOLID WASTE

4.14.3.1 ENVIRONMENTAL SETTING

Regulatory Setting

State Regulations

California Integrated Waste Management Act

California's Integrated Waste Management Act of 1989, AB 939, subsequently amended by SB 1016, set a requirement for cities and counties throughout the State to divert 50 percent of all solid waste from landfills by January 1, 2000 through source reduction, recycling, and composting. To help achieve this, the Act required that each city and county prepare and submit a Source Reduction and Recycling Element. AB 939 also established the goal for all California counties to provide at least 15 years of on-going landfill capacity.

³⁹ (0.024 wastewater generated divided by 4.8 MGD remaining capacity) x 100 = 0.5 percent of the remaining capacity.

UTILITIES AND SERVICE SYSTEMS

In 2007, SB 1016 amended AB 939 to establish a per capita disposal measurement system. The per capita disposal measurement system is based on two factors: a jurisdiction's reported total disposal of solid waste divided by a jurisdiction's population. The California Integrated Waste Management Board was replaced by the California Department of Resources Recycling and Recovery (CalRecycle) in 2010. CalRecycle sets a target per capita disposal rate for each jurisdiction. Each jurisdiction must submit an annual report to CalRecycle with an update of its progress in implementing diversion programs and its current per capita disposal rate. In 2015, the statewide residential per capita disposal rate was 4.7 pounds per resident per day, and the statewide employee per capita disposal rate was 11.1 pound per employee per day.⁴⁰

In 2011, AB 341 was passed that sets a State policy goal of not less than 75 percent of solid waste that is generated to be source reduced, recycled, or composted by the year 2020. CalRecycle was required to submit a report to the legislature by January 1, 2014 outlining the strategy that will be used to achieve this policy goal. AB 341 requires any business (including schools and government facilities) that generates 4 cubic yards or more of waste per week, and multifamily buildings with five or more units to arrange for recycling services. A recycling service may include mixed waste processing that yields diversion results comparable to source separation.

California Solid Waste Reuse and Recycling Access Act of 1991

The California Solid Waste Reuse and Recycling Access Act require areas in development projects to be set aside for collecting and loading recyclable materials. The act required CalRecycle to develop a model ordinance for adoption by any local agency relating to adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model, or an ordinance of their own, providing for adequate areas in development projects for the collection and loading of recyclable materials.

Mandatory Commercial Organics Recycling

In October of 2014 Governor Brown signed AB 1826⁴¹ requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste. Greenhouse gas (GHG) emissions result from the decomposition of organic wastes in landfills. Mandatory recycling of organic waste is aimed at helping achieve California's aggressive recycling and GHG emission goals.

⁴⁰ Calrecycle, California's Statewide Per Resident, Per Employee, and Total Disposal Since 1989, <http://www.calrecycle.ca.gov/lgcentral/GoalMeasure/DisposalRate/Graphs/Disposal.htm>, accessed on June 28, 2017.

⁴¹ Calrecycle, 2016. Mandatory Commercial Organics Recycling, <http://www.calrecycle.ca.gov/recycle/commercial/organics/>, accessed June 28, 2017.

UTILITIES AND SERVICE SYSTEMS

Global Warming Solutions Act of 2006, Scoping Plan

The California Global Warming Solutions Act of 2006 (also known as AB 32) was signed into law August 31, 2006. Under AB 32 the California Air Resources Board (CARB) adopted the *Climate Change Scoping Plan* (Scoping Plan); note, the most recent draft (2017) is currently out for review. The Scoping Plan includes a Mandatory Commercial Recycling Measure that focuses on diverting commercial waste as a means to reduce greenhouse gas (GHG) emissions, which CalRecycle adopted on January 17, 2012 and approved by the Office of Administrative Law on May 7, 2012.⁴² On June 27, 2012, the Governor signed SB 1018, which included an amendment requiring both businesses that generate 4 cubic yards or more of commercial solid waste per week and multi-family residences with five or more units to arrange for recycling services. This requirement became effective on July 1, 2012.⁴³

California Building Code: CALGreen

As discussed in Section 4.14.1, Water, above, CALGreen established standards that apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout the State of California, unless otherwise indicated in the California Building Standards Code. CALGreen Section 4.408, Construction Waste Reduction Disposal and Recycling, mandates that, in the absence of a more stringent local ordinance, a minimum of 65 percent of non-hazardous construction and demolition debris must be recycled or salvaged. CALGreen requires future developers to have a waste management plan, for on-site sorting or construction debris, which is submitted to the City of Santa Rosa for approval. The waste management plan does the following:

- Identifies the materials to be diverted from disposal by recycling, reuse on the Project or salvage for future use or sale.
- Specifies if materials will be sorted on-site or mixed for transportation to a diversion facility.
- Identifies the diversion facility where the material collected can be taken.
- Identifies construction methods employed to reduce the amount of waste generated.
- Specifies that the amount of materials diverted shall be calculated by weight or volume, but not by both.

The City of Santa Rosa has adopted all sections of the California Code of Regulations Title 24, Part 11, in SRCC Chapter 18-42, Citation of California Green Building Standards Code. In addition, the City adopted CALGreen Tier 1 Standards Section 4.408. which requires 65 percent of non-hazardous construction and demolition debris must be recycled or salvaged.

Regional Regulations

Sonoma County Countywide Integrated Waste Management Plan

The California Integrated Waste Management Act of 1989 (AB 939) requires each county to prepare and adopt a Countywide Integrated Waste Management Plan (CIWMP). The Sonoma County Waste Management Agency (SCWMA) is the joint powers authority of the nine incorporated cities, including

⁴³ CalRecycle, <http://www.calrecycle.ca.gov/Recycle/Commercial/>, accessed on June 28, 2017.

UTILITIES AND SERVICE SYSTEMS

Santa Rosa, and the County of Sonoma. As such, the SCWMA is the designated regional agency responsible for implementing, monitoring, and reporting programs that meet the goals of AB 939. The SCWMA operates various residential and commercial recycling, hazardous waste, composting, and green building programs throughout Sonoma County. The Sonoma County CIWMP is organized into four elements: Source Reduction and Recycling, Household Hazardous Waste, Siting, and Non-Disposal Facility.

Local Regulations

General Plan 2035

The Public Services and Facilities (PSF) element of the General Plan 2035 includes the following goals and policies specific to solid waste and applicable to the proposed project:

- **Goal PSF-H:** Meet the city’s solid waste disposal needs, while maximizing opportunities for waste reduction and recycling.
 - **Policy PSF-H-1:** Continue contracting for garbage and recycling collection services. Expand the single-stream recycling program (all recyclables in one container) to all users.
 - **Policy PSF-H-3:** Expand recycling efforts in multifamily residential and commercial projects, and continue to encourage recycling by all residents.
 - **Policy PSF-H-4:** Require provision of attractive, convenient recycling bins and trash enclosures in residential and non-residential development.

Santa Rosa City Code

Chapter 9-12, Refuse and Sanitation

Chapter 9-12 of the SRCC, Refuse and Sanitation, describes the responsibilities and requirements for owners, occupants and service providers regarding solid waste collection, storage, recycling and disposal.⁴⁴

Chapter 18-42, Citation of California Green Building Standards Code

The SRCC includes provisions that apply to buildings with regards to solid waste management and diversion. On July 17, 2008, the California Building Standards Commission adopted the California Green Building Standards Code (Title 24, Part 11, known as “CALGreen”) as part of the California Building Standards Code (Title 24, California Code of Regulations). CALGreen Section A4.408, Construction Waste Reduction Disposal and Recycling, mandates that, in the absence of a more stringent local ordinance, a minimum of 65 percent of non-hazardous construction and demolition debris must be recycled or salvaged. The City of Santa Rosa has adopted all sections of the California Code of Regulations Title 24, Part 11, in SRCC Chapter 18-42, Citation of California Green Building Standards Code.

Climate Action Plan

As described in Section 4.14.1, Water Supply, the City’s CAP recommends various community and municipal measures for near-term and mid-term considerations organized in nine topic areas, including

⁴⁴ The Ratto Group, <https://unicycler.com/residential/sonoma/santarosa>, accessed on June 28, 2017.

UTILITIES AND SERVICE SYSTEMS

solid waste disposal and recycling in Santa Rosa. The CAP contains the following goals, measures, and actions that are applicable to the proposed project:

- **Goal 6: Waste Reduction, Recycling, and Composting.** Reduce the amount of solid waste sent to landfill from Santa Rosa.
 - **Measure 6.1:** Recycling and composting Increase the amount of waste that is recycled and composted.
 - **Action 6.1.1:** Work with local waste haulers to improve the amount and types of waste that are accepted for curbside recycling and green waste pickup. Conduct outreach to and education of the public for dissemination of the information and options.
 - **Action 6.1.2:** Work with the Sonoma County Waste Management authority to encourage local restaurants to compost food and provide recyclable or compostable to-go containers.
 - **Action 6.1.3:** Increase the city's construction and demolition ordinance to require 75% diversion by 2020 and 85% diversion by 2035.

Existing Conditions

Collected recyclables, organics, and garbage are conveyed to the Central Disposal Site Transfer Station in Petaluma for processing. Central Disposal Site Transfer Station has a daily capacity of 2,500 tons per day and a remaining capacity of 9,076,760 cubic yards.⁴⁵ Once processed, the refuse is transported to the Potrero Hills, Redwood Sanitary Landfill, or Keller Canyon Landfill.

The Potrero Hills Landfill is located in Suisun City, California. It has a permitted daily capacity of 4,330 tons per day. Its remaining permitted capacity is 13,872,000 cubic yards. It has an estimated “cease operation date” of February 14, 2048.⁴⁶ In 2016, 13,008 tons of solid waste was transferred from the SCWMA service area to the Potrero Hills Landfill.⁴⁷

The Redwood Sanitary Landfill is located in Novato, California. It has a permitted daily capacity of 2,300 tons per day. Its remaining permitted capacity is 26,000,000 cubic yards. There is no cease of operation date listed for this landfill.⁴⁸ In 2016, 96,829 tons of solid waste was transferred from the SCWMA service area to the Redwood Sanitary Landfill.⁴⁹

The Keller Canyon Landfill is located in Bay Point, California. It has a permitted daily capacity of 3,500 tons per day. Its remaining permitted capacity is 63,408,410 cubic yards. It has an estimated “cease operation

⁴⁵ CalRecycle, Central Disposal Site (49-AA-0001), <http://www.calrecycle.ca.gov/SWFacilities/Directory/49-AA-0001/Detail/>, accessed on June 28, 2017.

⁴⁶ CalRecycle, “Potrero Hills Landfill (48-AA-0075)” <http://www.calrecycle.ca.gov/SWFacilities/Directory/48-AA-0075/Detail/>, accessed June 28, 2017.

⁴⁷ CalRecycle, Disposal Rate by Jurisdiction, Sonoma County Waste Management Agency, <http://www.calrecycle.ca.gov/LGCentral/Reports/Viewer.aspx?P=ReportYear%3d2016%26ReportName%3dReportEDRSJurisDisp%26OriginJurisdictionIDs%3d503>, accessed on June 28, 2017.

⁴⁸ CalRecycle, “Redwood Landfill (21-AA-0001)” <http://www.calrecycle.ca.gov/SWFacilities/Directory/21-AA-0001/Detail/>, accessed June 28, 2017.

⁴⁹ CalRecycle, Disposal Rate by Jurisdiction, Sonoma County Waste Management Agency, <http://www.calrecycle.ca.gov/LGCentral/Reports/Viewer.aspx?P=ReportYear%3d2016%26ReportName%3dReportEDRSJurisDisp%26OriginJurisdictionIDs%3d503>, accessed on June 28, 2017.

UTILITIES AND SERVICE SYSTEMS

date” of December 31, 2020.⁵⁰ In 2016, 5,893 tons of solid waste was transferred from the SCWMA service area to the Keller Canyon Landfill.⁵¹

The City has several waste reduction and recycling programs in place to divert the amount of waste that is transported to other landfills. Curb-side recycling efforts in multi-family and commercial projects, as well as single family neighborhoods, contribute to increased waste diversion.⁵² Education and outreach programs such as electronic waste programs, print brochure and advertisements, and education curriculum also assist in waste reduction.

In 2015, the SCWMA’s per capita solid waste disposal rate for residents was 4.3 pounds per day (PPD); the per capita disposal rate target for residents according to CalRecycle is 7.1 PPD.⁵³ The SCWMA’s per capita solid waste disposal rate for employees in 2015 was 10.9 PPD; the CalRecycle per capita disposal rate target for employees is 18.3 PPD.

4.14.3.2 STANDARDS OF SIGNIFICANCE

Implementation of the proposed project would have a significant impact on solid waste service if it would:

1. Not be served by a landfill(s) with sufficient permitted capacity to accommodate the project’s solid waste disposal needs.
2. Not comply with federal, State, and local statutes and regulations related to solid waste.

4.14.3.3 IMPACT DISCUSSION

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| UTIL-8 | Implementation of the proposed project would be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs. |
|---------------|---|

As described above, the solid waste produced in Santa Rosa is collected by the North Bay Corporation and conveyed to the Central Disposal Site Transfer Station for processing. Once, processed the waste is transported to the Potrero Hills Landfill, Redwood Sanitary Landfill, or Keller Canyon Landfill. In 2016, 13,008 tons of solid waste was transferred from the SCWMA service area, which includes Santa Rosa, to the Potrero Hills Landfill, 96,829 tons of solid waste was transferred to the Redwood Sanitary Landfill, and 5,893 tons of solid waste was transferred to the Keller Canyon Landfill. Table 4.14-3 compares the maximum daily capacity and estimated closure date for each of the three facilities.

⁵⁰ CalRecycle, “Keller Canyon Landfill (07-AA-0032)” <http://www.calrecycle.ca.gov/SWFacilities/Directory/21-AA-0001/Detail/>, accessed June 28, 2017.

⁵¹ CalRecycle, Disposal Rate by Jurisdiction, Sonoma County Waste Management Agency, <http://www.calrecycle.ca.gov/LGCentral/Reports/Viewer.aspx?P=ReportYear%3d2016%26ReportName%3dReportEDRSJurisDisposalByFacility%26OriginJurisdictionIDs%3d503>, accessed on June 28, 2017.

⁵² City of Santa Rosa, General Plan 2035, Chapter 6, Public Services and Facilities, page 6-12.

⁵³ CalRecycle Countywide, Regionwide, and Statewide Jurisdiction Diversion/Disposal Progress Report, Sonoma County Waste Management Agency, <http://www.calrecycle.ca.gov/lgcentral/Reports/jurisdiction/diversiondisposal.aspx>, accessed on June 29, 2017.

UTILITIES AND SERVICE SYSTEMS

TABLE 4.14-3 LANDFILLS' EXISTING DAILY CAPACITY AND ESTIMATED CLOSURE DATE

| Landfill Facility | Daily Capacity (tons per day) | Estimated Closure Year |
|---------------------------|-------------------------------|------------------------|
| Potrero Hills Landfill | 4,330 | February 14, 2048 |
| Redwood Sanitary Landfill | 2,300 | Not listed |
| Keller Canyon Landfill | 3,500 | December 31, 3020 |

Source: CalRecycle

The SCWMA's disposal rate per residents in 2015 was 4.3 pounds per day (PPD), which was below the CalRecycle target of 7.1 PPD.⁵⁴ The SCWMA's per capita solid waste disposal rate for employees in 2015 was 10.9 PPD, which was below the CalRecycle target for employees of 18.3 PPD.

As shown in Table 3-1, in Chapter 3, Project Description, of this Draft EIR, the new development potential under the proposed project in the Southeast Greenway Area at buildout could generate 632 new residents and 40 employees⁵⁵ and combined with the existing General Plan 2035 would result in 234,152 residents and 128,440 employees. For analysis purposes, solid waste generation is assumed to be the 2015 per capita generation rates of 4.3 PPD for residents and 10.5 PPD for employees. Accordingly, the solid waste generated by the proposed project's potential future residents and employees is estimated to be 2,718 PPD and 436 PPD, respectively.⁵⁶ Accordingly, the total estimated solid waste generation for the proposed project would be 3,154 PPD or 1.6 tons per day,⁵⁷ which represents less than 1 percent of the daily permitted capacity for Potrero Hills Landfill,⁵⁸ Redwood Sanitary Landfill,⁵⁹ and Keller Canyon Landfill.⁶⁰ In addition, the proposed project would be required to comply with State and local regulations that require the reduction of solid waste production and promote recycling and composting of materials listed above. The General Plan 2035 also includes policies that ensure the City's solid waste disposal needs are met, while maximizing opportunities for waste reduction and recycling. Accordingly, buildout of the proposed project would have a *less-than-significant* impact with regard to daily capacity at each of the landfill facilities.

Significance Without Mitigation: Less than significant.

⁵⁴ CalRecycle Countywide, Regionwide, and Statewide Jurisdiction Diversion/Disposal Progress Report, Sonoma County Waste Management Agency, <http://www.calrecycle.ca.gov/lgcentral/Reports/jurisdiction/diversiondisposal.aspx>, accessed on June 29, 2017.

⁵⁵ Assumes 2.59 persons per household per Department of Finance, E-5 City/County Population and Housing Estimates, January 1, 2016. (244 units x 2.59 person per household = 632 residents); 300 square feet (sf) per employee consistent with the General Plan, Table 2-1, Permitted Densities/Intensities under General Plan, page 2-6 (12,000 sf commercial/300 sf per employee = 40 employees).

⁵⁶ (632 new residents x 4.3 PPD) = 2,718 PPD generated by new residents; (40 new employees x 10.9) = 436 PPD generated by new employees.

⁵⁷ (3,154 PPD x 0.0005 tons) = 1.6 tons of waste per day.

⁵⁸ (1.6 tons of waste per day divided by 4,330 permitted daily capacity) x 100 = 0.03 percent of the daily permitted capacity.

⁵⁹ (1.6 tons of waste per day divided by 2,300 permitted daily capacity) x 100 = 0.08 percent of the daily permitted capacity.

⁶⁰ (1.6 tons of waste per day divided by 3,500 permitted daily capacity) x 100 = 0.05 percent of the daily permitted capacity.

UTILITIES AND SERVICE SYSTEMS

UTIL-9 **Implementation of the proposed project would comply with federal, State, and local statutes and regulations related to solid waste.**

As described above under Section 4.14.3.1, Regulatory Framework, California’s Integrated Waste Management Act of 1989, AB 939, subsequently amended by SB 1016, set a requirement for cities and counties throughout the State to divert 50 percent of all solid waste from landfills by January 1, 2000 through source reduction, recycling, and composting. The City has several waste reduction and recycling programs in place to divert the amount of waste that is transported to other landfills. Curbside recycling efforts in multi-family and commercial projects, as well as single-family neighborhoods, contribute to increased waste diversion.⁶¹ Education and outreach programs such as electronic waste programs, print brochure and advertisements, and education curriculum also assist in waste reduction. In addition, General Plan 2035 Policies (listed above) actively encourage residential and commercial waste reduction and recycling programs.

Potential future development under the proposed project would be required to comply with existing regulations, include the General Plan 2035 policies (listed above) that have been prepared to minimize impacts related to adequate waste collection and disposal facilities. Therefore, continued compliance with State and local policies, such as AB 939, and General Plan 2035 policies would ensure that impacts are less than significant with regards to solid waste and the impact would be *less than significant*.

Significance Without Mitigation: Less than significant.

4.14.3.4 CUMULATIVE IMPACTS

UTIL-10 **Implementation of the proposed project, in combination with past, present, and reasonably foreseeable development, would result in less-than-significant impacts with respect to solid waste.**

The cumulative impact for solid waste is considered in the context of the growth from potential future development under the proposed project combined with the estimated growth in the areas served by the Potrero Hills Landfill, Redwood Sanitary Landfill, and Keller Canyon Landfill.

While the proposed project would contribute to an increase in the cumulative demand for solid waste disposal, the increase represents less than 1 percent of the remaining at the Potrero Hills Landfill,⁶² Redwood Sanitary Landfill,⁶³ and Keller Canyon Landfill.⁶⁴ As described above, the proposed project would be served by a landfill with permitted capacity and would comply with federal, State, and local statutes and regulations related to solid waste. Accordingly, cumulative impacts to solid waste would be *less than significant*.

Significance Without Mitigation: Less than significant.

⁶¹ City of Santa Rosa, General Plan 2035, Chapter 6, Public Services and Facilities, page 6-12.

⁶² (1.6 tons of waste per day divided by 4,330 permitted daily capacity) x 100 = 0.03 percent of the daily permitted capacity.

⁶³ (1.6 tons of waste per day divided by 2,300 permitted daily capacity) x 100 = 0.08 percent of the daily permitted capacity.

⁶⁴ (1.6 tons of waste per day divided by 3,500 permitted daily capacity) x 100 = 0.05 percent of the daily permitted capacity.

UTILITIES AND SERVICE SYSTEMS

4.14.4 ENERGY CONSERVATION

In order to assure that energy implications are considered in project decisions, Appendix F, Energy Conservation, of the CEQA Guidelines, requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. However, no specific thresholds of significance for potential energy impacts are suggested in the State CEQA Guidelines.

This section provides a general description of the existing regulatory setting and conditions addressing electric and natural gas services and infrastructure, and supply and demand in Santa Rosa, as well as potential impacts of the proposed project with regard to energy conservation.

4.14.4.1 ENVIRONMENTAL SETTING

Regulatory Setting

Federal Regulations

Energy Independence and Security Act of 2007

Signed into law in December 2007, this act is an energy policy law that contains provisions designed to increase energy efficiency and the availability of renewable energy. The act contains provisions for increasing fuel economy standards for cars and light trucks, while establishing new minimum efficiency standards for lighting, as well as residential and commercial appliance equipment.

Energy Policy Act of 2005

Passed by Congress in July 2005, the Energy Policy Act includes a comprehensive set of provisions to address energy issues. This act includes tax incentives for the following: energy conservation improvements in commercial and residential buildings; fossil fuel production and clean coal facilities; and construction and operation of nuclear power plants, among other things. Subsidies are also included for geothermal, wind energy, and other alternative energy producers.

Natural Gas Pipeline Safety Act of 1968

The Natural Gas Pipeline Safety Act of 1968 authorizes the Department of Transportation (DOT) to regulate pipeline transportation of flammable, toxic, or corrosive natural gas and other gases as well as the transportation and storage of liquefied natural gas. The Pipeline and Hazardous Materials Safety Administration (PHMSA) within DOT develops and enforces regulations for the safe, reliable, and environmentally sound operation of the nation's 2.6 million mile pipeline transportation system. DOT's and PHMSA's regulations governing natural gas transmission pipelines, facility operations, employee activities, and safety are found in 49CFR Part 40, 40CFR Part 190, 40CFR Part 191, 49CFR Part 192, 49CFR Part 193 and 49CFR Part 199.

UTILITIES AND SERVICE SYSTEMS

National Energy Policy

Established in 2001 by the National Energy Policy Development Group, this policy is designed to help the private sector and state and local governments promote dependable, affordable, and environmentally sound production and distribution of energy for the future. Key issues addressed by the energy policy are energy conservation, repair and expansion of energy infrastructure, and ways of increasing energy supplies while protecting the environment.

State Regulations

California Public Utilities Commission

In September 2008, the California Public Utilities Commission (CPUC) adopted the Long Term Energy Efficiency Strategic Plan, which provides a framework for energy efficiency in California through the year 2020 and beyond. It articulates a long-term vision, as well as goals for each economic sector, identifying specific near-term, mid-term, and long-term strategies to assist in achieving these goals. This Plan sets forth the following four goals, known as Big Bold Energy Efficiency Strategies, to achieve significant reductions in energy demand:

- All new residential construction in California will be zero net energy by 2020;
- All new commercial construction in California will be zero net energy by 2030;
- Heating, Ventilation and Air Conditioning (HVAC) will be transformed to ensure that its energy performance is optimal for California's climate; and
- All eligible low-income customers will be given the opportunity to participate in the low-income energy efficiency program by 2020.

With respect to the commercial sector, the Long Term Energy Efficiency Strategic Plan notes that commercial buildings, which include schools, hospitals, and public buildings, consume more electricity than any other end-use sector in California. The commercial sector's five billion-plus square feet of space accounts for 38 percent of the state's power use and over 25 percent of natural gas consumption. Lighting, cooling, refrigeration, and ventilation account for 75 percent of all commercial electric use, while space heating, water heating, and cooking account for over 90 percent of gas use. In 2006, schools and colleges were in the top five facility types for electricity and gas consumption, accounting for approximately 10 percent of state's electricity and gas use.

The CPUC and the California Energy Commission have adopted the following goals to achieve zero net energy (ZNE) levels by 2030 in the commercial sector:

- **Goal 1:** New construction will increasingly embrace zero net energy performance (including clean, distributed generation), reaching 100 percent penetration of new starts in 2030.
- **Goal 2:** 50 percent of existing buildings will be retrofit to zero net energy by 2030 through achievement of deep levels of energy efficiency and with the addition of clean distributed generation.
- **Goal 3:** Transform the commercial lighting market through technological advancement and innovative utility initiatives.

UTILITIES AND SERVICE SYSTEMS

California Building Code: Building Energy Efficiency Standards

The State provides a minimum standard for energy conservation through Title 24 of the California Code of Regulations, commonly referred to as the “California Energy Code”. The California Energy Code was adopted in June 1977 and most recently revised in 2016 (Title 24, Part 6, of the California Code of Regulations). Title 24 requires the design of building shells and building components to conserve energy. On June 10, 2015, the California Energy Commission adopted the 2016 Building Energy Efficiency Standards, which went into effect on January 1, 2017. The 2016 Standards continue to improve upon the previous 2013 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. Under the 2016 Standards, residential and nonresidential buildings are 28 and 5 percent more energy efficient than the 2013 Standards, respectively.⁶⁵ While the 2016 standards do not achieve zero net energy, they do get very close to the State’s goal and make important steps toward changing residential building practices in California. The 2019 standards will take the final step to achieve zero net energy for newly constructed residential buildings throughout California.⁶⁶ The City of Santa Rosa has adopted all sections of the California Energy Code in SCRR Chapter 18-33, California Energy Code.

California Building Code: CALGreen

As discussed in Section 4.14.1, Water, above, CALGreen established standards that apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout the State of California, unless otherwise indicated in the California Building Standards Code. The purpose of CALGreen is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices in energy efficiency, amongst others. Compliance with the CALGreen Code is not a substitution for meeting the certification requirements of any green building program. CALGreen requires new buildings to install low pollutant-emitting materials. The City of Santa Rosa has adopted all sections of the California Code of Regulations Title 24, Part 11, in SRCC Chapter 18-42, Citation of California Green Building Standards Code.

2006 Appliance Efficiency Regulations

The 2006 Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608) were adopted by the California Energy Commission on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non-federally regulated appliances. Though these regulations are now often viewed as “business-as-usual,” they exceed the standards imposed by all other states and they reduce GHG emissions by reducing energy demand.

⁶⁵ California Energy Commission. 2015. 2016 Building Energy Efficiency Standards, Adoption Hearing Presentation. <http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/>, accessed July 7, 2017.

⁶⁶ California Energy Commission. 2015. 2016 Building Energy and Efficiency Standards Frequently Asked Questions. http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2016_Building_Energy_Efficiency_Standards_FAQ.pdf accessed July 7, 2017.

UTILITIES AND SERVICE SYSTEMS

Governor's Green Building Executive Order

In 2004, Executive Order (EO) S-20-04 was signed by the Governor, committing the State to take aggressive action to reduce state building electricity usage by retrofitting, building, and operating the most energy- and resource-efficient buildings by taking all cost-effective measures described in the Green Building Action Plan for facilities owned, funded, or leased by the State and to encourage cities, counties, and schools to do the same. It also calls for State agencies, departments, and other entities under the direct executive authority of the Governor to cooperate in taking measures to reduce grid-based energy purchases for State-owned buildings by 20 percent by 2015, through cost-effective efficiency measures and distributed generation technologies. These measures should include, but are not limited to:

- Designing, constructing and operating all new and renovated State-owned facilities paid for with state funds as "LEED Silver" or higher certified buildings;
- Identifying the most appropriate financing and project delivery mechanisms to achieve these goals;
- Seeking out office space leases in buildings with a USEPA Energy Star rating; and
- Purchasing or operating Energy Star electrical equipment whenever cost-effective.

Renewable Portfolio Standard

Signed into law in 2011, SB X1-2 directs the California Public Utilities Commission's Renewable Energy Resources Program to increase the amount of electricity generated from eligible renewable energy resources per year to an amount that equals at least 20 percent of the total electricity sold to retail customers in California per year by December 31, 2013, 25 percent by December 31, 2016 and 33 percent by December 31, 2020. SB X1-2 codifies the 33 percent by 2020 renewable portfolio standard goal established pursuant to AB 32. This new renewable portfolio standard applies to all electricity retailers in the State including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. All of these entities must adopt the new renewable portfolio standard goals as listed.

California Energy Benchmarking and Disclosure

AB 1103 (2007) requires that electric and gas utilities maintain records of the energy consumption data of all nonresidential buildings to which they provide service and that by January 1, 2009, upon authorization of a nonresidential building owner or operator, an electric or gas utility shall upload all of the energy consumption data for the specified building to the USEPA Energy Star Portfolio Manager in a manner that preserves the confidentiality of the customer. This statute further requires a nonresidential building owner or operator disclose Energy Star Portfolio Manager benchmarking data and ratings, for the most recent 12-month period, to a prospective buyer, lessee, or lender. Enforcement of the latter requirement began on January 1, 2014.

On October 8, 2015, the Governor signed AB 802 which would revise and recast the above provisions. The new law directs the California Energy Commission to establish a statewide energy benchmarking and disclosure program, and enhances the California Energy Commission's existing authority to collect data from utilities and other entities for the purposes of energy forecasting, planning and program design. Among the specific provisions, AB 802 would require utilities to maintain records of the energy usage data of all buildings to which they provide service for at least the most recent 12 complete months. Beginning

UTILITIES AND SERVICE SYSTEMS

no later than January 1, 2017, AB 802 would require each utility, upon the request and the written authorization or secure electronic authorization of the owner, owner's agent, or operator of a covered building, as defined, to deliver or provide aggregated energy usage data for a covered building to the owner, owner's agent, operator, or to the owner's account in the Energy Star Portfolio Manager, subject to specified requirements. The bill would also authorize the commission to specify additional information to be delivered by utilities for certain purposes.

Local Regulations

General Plan 2035

The Open Space and Conservation (OSC) element of the General Plan 2035 includes the following goals and policies specific to energy conservation and applicable to the proposed project:

- **Goal OSC-K:** Reduce energy use in existing and new commercial, industrial, and public structures.
 - **Policy OSC-K-1:** Promote the use of site planning, solar orientation, cool roofs, and landscaping to decrease summer cooling and winter heating needs. Encourage the use of recycled content construction materials.
 - **Policy OSC-K-1:** Identify opportunities for decreasing energy use through installation of energy efficient lighting, reduced thermostat settings, and elimination of unnecessary lighting in public facilities.
 - **Policy OSC-K-3:** Identify and implement energy conservation measures that are appropriate for public buildings. Implement measures that are at least as effective as those in the retrofit ordinances for commercial and office buildings.
 - **Policy OSC-K-5:** Implement measures of the Climate Action Plan which increase energy efficiency, including retrofitting existing buildings and facilitating energy upgrades.
- **Goal OSC-L:** Encourage the development of nontraditional and distributed sources of electrical generation.
 - **Policy OSC-L-3:** Establish a city renewable energy program which will allow the city to generate or receive a significant portion of energy from renewable sources.

Santa Rosa City Code

Chapter 18-33, California Energy Code

The SRCC includes provisions that apply to buildings with regards to energy conservation. On June 10, 2015, the California Energy Commission adopted the 2016 Building Energy Efficiency Standards (Title 24, Part 6, known as the California Energy Code), which went into effect on January 1, 2017. The City of Santa Rosa has adopted all sections of the California Energy Code in SCRR Chapter 18-33, California Energy Code.

Chapter 18-42, Citation of California Green Building Standards Code

The SRCC includes provisions that apply to buildings with regards to installation of low pollutant-emitting materials. On July 17, 2008, the California Building Standards Commission adopted the California Green Building Standards Code (Title 24, Part 11, known as "CALGreen") as part of the California Building Standards Code (Title 24, California Code of Regulations). The City of Santa Rosa has adopted all sections of

UTILITIES AND SERVICE SYSTEMS

the California Code of Regulations Title 24, Part 11, in SRCC Chapter 18-42, Citation of California Green Building Standards Code.

Climate Action Plan

As described in Section 4.14.1, Water Supply, the City's CAP recommends various community and municipal measures for near-term and mid-term considerations organized in nine topic areas, including energy efficiency and conservation, and renewable energy. The CAP contains the following goals, measures, and actions that are applicable to the proposed project:

- **Goal 1: Energy Efficiency and Conservation.** Facilitate energy efficiency and conservation through behavior changes and retrofits.
 - **Measure 1.1: CALGreen Requirements for New Construction.** Continue to enforce and require new development to meet Tier 1 CALGreen requirements, as amended, for new nonresidential and residential development.
 - **Action 1.1.1:** Require new development to comply with the current provisions, as amended, of CALGreen, Part 11 of the California Green Building Standards Code.
 - **Action 1.1.2:** Continue to require Tier 1 standards for new development and consider adding major remodels during the next building code update.
 - **Action 1.1.3:** Require all new construction to be built with net zero electricity use, beginning in 2020.
 - **Action 1.1.4:** Evaluate potential incentives for projects that have net zero electricity use, prior to 2020.
 - **Measure 1.3: Smart Meter Utilization.** Encourage existing development and require new development to utilize PG&E's Smart Meter system to facilitate energy and cost savings.
 - **Action 1.3.1:** Require new construction and major remodels to install real-time energy monitors that allow building users to track their current energy use.
 - **Measure 1.4: Tree Planting and Urban Forestry.** Plant and maintain trees on private property, streets, and open space areas.
 - **Action 1.4.2:** Implement the City's tree preservation ordinance.
 - **Action 1.4.3:** Require new development to supply an adequate number of street trees and private trees.
 - **Measure 1.5: Cool Roofs and Pavements.** Require new sidewalks, crosswalks, and parking lots to be made of cool paving materials with a high solar reflectivity.
 - **Action 1.5.1:** Adopt an ordinance that requires and specifies cool paving materials for new parking lots, sidewalks, roofs, and crosswalks and integrates Low Impact Development guidelines for new construction and Capital Improvement Projects.
 - **Action 1.5.2:** Ensure the cool roof and paving ordinance includes cool roof specifications which allow for green or living roofs and address energy installations on historic structures consistent with the Secretary of Interior's Rehabilitation Standards. Allow darker-color roofs when they meet cool roof standards.
 - **Action 1.5.3:** Create a pilot program for a Green Streets Policy.
 - **Measure 1.6: Energy-Efficient Appliances.** Facilitate the efficient use of energy for appliances in residential, commercial, and industrial buildings.
 - **Action 1.6.1:** Seek funding sources to develop a rebate program for residents and businesses to exchange inefficient appliances with Energy Star certified models.

UTILITIES AND SERVICE SYSTEMS

- **Measure 1.7: Appliance Electrification.** Encourage residents and businesses to switch natural-gas-powered appliances to electric power, where appropriate.
 - **Action 1.7.1:** Utilize the energy-efficient appliance rebate program to facilitate the replacement of natural gas equipment with electric-powered equipment.
 - **Action 1.7.2:** Identify opportunities to implement additional programs that will switch appliances from natural gas to electricity.
- **Goal 2: Renewable Energy.** Install and utilize renewable energy sources in Santa Rosa.
 - **Measure 2.1: Small-Scale Renewable Energy Installations.** Support the installation of small-scale renewable energy systems including solar photovoltaic, solar thermal, wind, and others.
 - **Action 2.1.1:** Update the Zoning Code to define a renewable energy strategy that removes any barriers to small-scale renewable energy systems.
 - **Action 2.1.2:** Implement a Solar Policy. Revise the permit processes and fees as appropriate to remove barriers to and incentivize the installation of renewable energy systems in accordance with applicable safety and environmental standards.
 - **Action 2.1.3:** Consider requiring new homes and businesses to be pre-wired and pre-plumbed for solar, wind, solar thermal installations, and electric vehicle charging stations.
 - **Action 2.1.4:** Create and prioritize municipal projects that incorporate or generate renewable energy.
 - **Measure 2.2: Renewable Energy Financing.** Connect property owners with low-interest financing opportunities for renewable energy installations.
 - **Action 2.2.1.** Continue to partner with Sonoma County Energy Independence Program (SCEIP) to provide Property Assessed Clean Energy (PACE) or equivalent financing for solar installations.
 - **Action 2.2.2.** Explore and advocate for a regional or statewide Feed-In Tariff (FIT) to spur the installation of mid-sized renewable energy installations.

Existing Conditions

California's Energy Supplies

In 2016, California's in-state supply of electricity was derived from the following sources: natural gas (49.86 percent), nuclear (9.55 percent), "large" hydroelectric (12.31 percent), renewables (27.95 percent), and coal (0.16 percent).⁶⁷

Overall, electricity demand is forecast to increase an average of 0.97 percent⁶⁸ annually from 2014 through 2026, even with the more aggressive building and appliance energy efficiency standards and programs.

Natural gas has become an increasingly important source of energy since the state's power plants rely on this fuel. Nearly 45 percent of the natural gas burned in California was used for electricity generation, and

⁶⁷ California Energy Commission, Energy Almanac, Total Electricity System Power. http://www.energy.ca.gov/almanac/electricity_data/total_system_power.html, accessed July 7, 2017.

⁶⁸ California Energy Commission. 2016. Tracking Progress, Statewide Energy Demand (CED 2015 Revised Mid Energy Demand scenario), http://www.energy.ca.gov/renewables/tracking_progress/documents/statewide_energy_demand.pdf, accessed July 7, 2017.

UTILITIES AND SERVICE SYSTEMS

much of the remainder consumed in the residential (21 percent), industrial (25 percent), and commercial (9 percent) sectors. California continues to depend upon out-of-state imports for nearly 90 percent of its natural gas supply⁶⁹.

A third major source of energy for California is crude oil. Oil supply sources for the State include in-state production, Alaska, and foreign imports. For 2016, of the approximately 603 million barrels of crude oil delivered to refineries in the State, California produced 34.10 percent, while foreign sources and Alaska provided 54.49 percent and 11.41 percent, respectively⁷⁰.

Electricity and Gas Providers

Sonoma Clean Power

Sonoma Clean Power (SCP) is the public electricity provider for Sonoma and Mendocino counties. As a not-for-profit public agency, SCP is independently run by Sonoma County and the participating cities of Coverdale, Cotati, Petaluma, Rohnert Park, Santa Rosa, Sebastopol, Sonoma, unincorporated Sonoma County, and the Town of Windsor. SCP provides electricity generated from renewable sources such as solar, wind, geothermal, and hydropower. Individuals residing in participating areas are automatically enrolled in SCP. Individuals residing or working within the SCP service area have are automatically enrolled in SCP.

SCP offers three program options; the CleanStart program which provides 42 percent renewable power service, the EverGreen program which provides 100 percent local renewable power service, or the OptOut program which allows individuals to continue to receive PG&E's basic service. The electric energy provided by SCP is conveyed to customers through PG&E's existing infrastructure. PG&E continues to maintain the grid, repair lines, and customer billing within the SCP service area.

Pacific Gas and Electric Company

Pacific Gas and Electric Company (PG&E) provides electricity and natural gas services to the City. PG&E is a publicly traded utility company which generates, purchases, and transmits energy under contract with the CPUC. PG&E owns and maintains above and below ground networks of electric and gas transmission and distribution facilities throughout the city. Both gas and electrical service is available throughout the project area.

PG&E's service territory is 70,000 square miles in area, roughly extending north to south from Eureka to Bakersfield, and east to west from the Sierra Nevada mountain range to the Pacific Ocean. PG&E's electricity distribution system consists of 141,215 circuit miles of electric distribution lines and 18,616 circuit miles of interconnected transmission lines. PG&E electricity is generated by a combination of sources such as coal-fired power plants, nuclear power plants, and hydro-electric dams, as well as newer sources of energy, such as wind turbines and photovoltaic plants or "solar farms." "The Grid," or bulk electric grid, is a network of high-voltage transmission lines link power plants with the PG&E system. The

⁶⁹ California Energy Commission. 2017. Supply and Demand of Natural Gas in California, http://www.energy.ca.gov/almanac/naturalgas_data/overview.html, accessed July 7, 2017.

⁷⁰ California Energy Commission. 2017. Oil Supply Sources to California refineries, http://www.energy.ca.gov/almanac/petroleum_data/statistics/crude_oil_receipts.html, accessed July 7, 2017.

UTILITIES AND SERVICE SYSTEMS

distribution system, comprised of lower voltage secondary lines, is at the street and neighborhood level, and consists of overhead or underground distribution lines, transformers, and individual service “drops” that connect to the individual customer.

PG&E produces or buys its energy from a number of conventional and renewable generating sources, which travel through PG&E’s electric transmission and distribution systems. The power mix PG&E provided to customers in 2015 consisted of non-emitting nuclear generation (23 percent), large hydroelectric facilities (6 percent) and eligible renewable resources (30 percent), such as wind, geothermal, biomass, solar and small hydro⁷¹. The remaining portion came from natural gas/other (25 percent) and unspecified power (17 percent). Unspecified power refers to electricity that is not traceable to specific generation sources by any auditable contract trail. In addition, PG&E has plans to increase the use of renewable power. For instance, PG&E purchases power from customers that install small scale renewable generators (e.g., wind turbines or photovoltaic cells) up to 1.5 megawatts in size.

PG&E’s natural gas (methane) pipe delivery system includes 42,141 miles of distribution pipelines, and 6,438 miles of transportation pipelines. Gas delivered by PG&E originates in gas fields in California, the US Southwest, US Rocky Mountains, and from Canada. Transportation pipelines send natural gas from fields and storage facilities in large pipes under high pressure. The smaller distribution pipelines deliver gas to individual businesses or residences.

PG&E gas transmission pipeline systems serve approximately 4.2 million gas customers in northern and central California. The system is operated under an inspection and monitoring program. The system operates in real time on a 24-hour basis, and includes leak inspections, surveys, and patrols of the pipelines. A new program, the Pipeline 2020 program, aims to modernize critical pipeline infrastructure, expand the use of automatic or remotely-operated shut-off valves, catalyze development of next-generation inspection technologies, develop industry-leading best practices, and enhance public safety partnerships with local communities, public officials, and first responders.

Regulatory requirements for efficient use of electricity and gas are contained in Title 24, Part 6, of the CCR, entitled “Energy Efficiency Standards for Residential and Nonresidential Buildings.” These regulations specify the State’s minimum energy efficiency standards and apply to new construction of both residential and nonresidential buildings. The standards regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. Compliance with these standards is verified and enforced through the local building permit process.

Existing Energy on the Project Site

As discussed in Chapter 3, Project Description, of this Draft EIR, the 57-acre project site is generally undeveloped. Accordingly, the project site does not currently use electricity or natural gas.

⁷¹ Pacific Gas and Electric Company, 2016, PG&E’s 2015 Power Mix, https://www.pge.com/pge_global/common/pdfs/your-account/your-bill/understand-your-bill/bill-inserts/2016/11.16_PowerContent.pdf

UTILITIES AND SERVICE SYSTEMS

4.14.4.2 THRESHOLDS OF SIGNIFICANCE

Appendix F, Energy Conservation, of the CEQA Guidelines, requires a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy; however, no specific thresholds of significance for potential energy impacts are published in the State CEQA Guidelines or are established by the City of Santa Rosa.

Therefore, this EIR analysis determined that impacts would be significant if the proposed project, upon potential future development buildout, would result in a substantial increase in natural gas and electrical service demands that would require the new construction of energy supply facilities and transmission infrastructure or capacity enhancing alterations to existing facilities, paralleling the threshold determinations for other utility and service systems under Appendix G. To further the intent of Appendix F, relevant, potential impacts listed in that appendix are also incorporated in the evaluation.

Appendix F lists the following possible impacts to energy conservation that should be considered to the extent they are applicable and relevant to a particular project:

1. The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance and/or removal. If appropriate, the energy intensiveness of materials maybe discussed.
2. The effects of the project on local and regional energy supplies and on requirements for additional capacity.
3. The effects of the project on peak and base period demands for electricity and other forms of energy.
4. The degree to which the project complies with existing energy standards.
5. The effects of the project on energy resources.
6. The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

4.14.4.3 IMPACT DISCUSSION

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|----------------|--|
| UTIL-11 | Implementation of the proposed project would not result in a substantial increase in natural gas and electrical service demands, and would not require new energy supply facilities and transmission infrastructure or capacity enhancing alterations to existing facilities. |
|----------------|--|

Implementation and adoption of the proposed project could result in new development potential up to 47.2 acres of park and recreational uses including open space, 244 multi-family housing units, and 12,000 square feet of commercial space in the Southeast Greenway Area. The proposed increase in development would result in a long-term increase in energy demand, associated primarily with the operation of lighting and space heating/cooling in the added building space. In addition, construction activities associated with proposed development require the use of energy (e.g., electricity and fuel) for various purposes such as the operation of construction equipment and tools, as well as excavation, grading, demolition, and vehicle travel.

UTILITIES AND SERVICE SYSTEMS

Construction Energy Impacts

Even with energy-saving practices in place, new electrical connections, switches and/or transformers would be required to serve potential new structures and/or carry additional loads. Similarly, new gas distribution lines and connections would be necessary. Most of the work would be in existing public rights-of-way or facilities. Although creation of new or re-located gas and electric lines could create short-term construction-related environmental effects (e.g., noise, dust, traffic, temporary service interruption, etc.), the work would be subject to compliance with the City's and PG&E's regulations and standard conditions for new construction related to infrastructure improvements. For example, these regulations and conditions would require gas and electric line construction to include best management practices that require construction areas to minimize dust generation, limit construction noise to daytime hours to limit impacts to sensitive receptors, and use modern equipment to limit emissions. Also, any such work would be subject to compliance with applicable regulations and standard conditions of approval for construction projects, including City permits/review for construction (e.g., grading permits, private development review, encroachment permits, etc.), CAP, and CALGreen Building Code per SRCC Chapter 18-42.

Construction vehicles consume fuel. As discussed in Section 4.6, Greenhouse Gas Emissions, the USEPA adopted the Heavy-Duty National Program to establish fuel efficiency and GHG emission standards in the heavy-duty highway vehicle sector, which includes combination tractors (semi-trucks), heavy-duty pickup trucks and vans, and vocational vehicles (including buses and refuse or utility trucks). These standards include targets for gallons of fuel consumed per mile beginning in model year 2014. These standards are being extended through model year 2018 through current rulemaking by the USEPA. While construction activities require a commitment of energy sources, these efficiency standards improve energy security and innovation in clean energy technology and further the goal of conserving energy in the context of project development. As a result, construction impacts would be *less than significant*.

Significance Without Mitigation: Less than significant.

Operation Energy Impacts

The potential future development under the proposed project would result in a long-term increase in energy demand associated with the operation of lighting and space heating/cooling in the added building space, and vehicle travel. The proposed project is expected to use approximately 1,395,265 kWh of electricity and 349,000,000 kBtu of natural gas annually.⁷² The proposed project would be constructed using energy efficient modern building materials and construction practices. The new buildings also would use new modern appliances and equipment, and would comply with the current CALGreen Building Code per SRCC Chapter 18-42, which requires the use of recycled construction materials, environmentally sustainable building materials, building designs that reduce the amount of energy used in building heating and cooling systems as compared to conventionally built structures, and landscaping that incorporates water efficient irrigation systems. Therefore, operation energy impacts would be *less than significant*.

Significance Without Mitigation: Less than significant.

⁷² These values are consistent with *California Emissions Estimator Model User's Guide* of electricity and natural gas, respectively, for commercial uses, from California Air Pollution Control Officers Association (CAPCOA). *California Emissions Estimator Model User's Guide, Version 2013.2*. 2016. Calculations are included in Appendix B, of this Draft EIR.

UTILITIES AND SERVICE SYSTEMS

Transportation Energy Impacts

Chapter 4.13, Transportation and Circulation, provides an evaluation of the expected traffic and transit trips generated by the proposed project. As discussed, the proposed project would potentially generate about 2,768 trips daily trips. Based on trip summary contained in the air quality analysis (Appendix B of this Draft EIR), the total annual VMT generated by the proposed project would be 2,313 miles.

As discussed above and in Chapter 4.6, Greenhouse Gas Emissions, the USEPA adopted standards that include targets for gallons of fuel consumed per mile beginning in model year 2014. These standards are being extended through model year 2018 through current rulemaking by the USEPA. While future transportation would require a commitment of energy sources, these efficiency standards improve energy security and innovation in clean energy technology and further the goal of conserving energy in the context of project development. In addition, as concluded in Chapter 4.6, Greenhouse Gas Emissions, the proposed project would not result in any significant impacts related to GHG emissions. Further, compliance with the applicable regulations (listed above) would ensure that *less-than-significant* impacts would occur related to transportation energy impacts.

Significance Without Mitigation: Less than significant.

Renewable Energy Impacts

The proposed project would be within the 70,000-square-mile PG&E service territory for electricity and natural gas generation, transmission and distribution. Due to the proposed project's size and location within an urban development, potential future buildout of the proposed project would not significantly increase energy demands within the service territory and would not require new energy supply facilities or transmission infrastructure. As a result, new energy supply facilities and transmission infrastructure, or capacity-enhancing alterations to existing facilities, would not be required. Therefore, with consideration of the applicable regulations (listed above), including the renewable energy measures in the City of Santa Rosa CAP and General Plan, impacts related to renewable energy, energy conservation and utility electrical and gas facilities would be *less than significant*.

Significance Without Mitigation: Less than significant.

4.14.4.4 CUMULATIVE IMPACTS

| | |
|---------|--|
| UTIL-12 | Implementation of the proposed project, in combination with past, present, and reasonably foreseeable development, would result in less-than-significant impacts with respect to energy conservation. |
|---------|--|

The discussion under UTIL-11 described the proposed project's impacts in relationship to the PG&E service territory and therefore includes a discussion of cumulative impacts.

Significance Without Mitigation: Less than significant.

UTILITIES AND SERVICE SYSTEMS

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