

## 4.13 UTILITIES AND SERVICE SYSTEMS

This section identifies utilities and service system conditions that serve the project site and surrounding area and evaluates the potential impacts to utilities and service systems from project implementation.

### 4.13.1 Environmental Setting

This section describes the existing utilities and service system conditions at the project site, in the area immediately surrounding the project site, and in the general vicinity of the project site.

#### 4.13.1.1 Water Service

The City of Fairfield receives potable and non-potable surface water supplies through the Solano Project, the State Water Project (SWP), and “settlement water” obtained through negotiations with the Department of Water Resources (DWR) in 2003. SWP and non-SWP settlement water are delivered to the City of Fairfield through the 27-mile-long North Bay Aqueduct (NBA), which is a component of the SWP. Fairfield has a SWP Table A annual water allocation of 14,678 acre-feet and is also entitled, under certain conditions, to an annual 11,800 acre-feet North of Delta allocation and Advanced Table A under a 2013 Settlement between the Sacramento County Water Agency (SCWA) and the DWR.<sup>1</sup> Fairfield has an entitlement of the Federal Solano Project for 9,200 acre-feet of water annually, plus 18,020 acre-feet of water annually of additional Solano Project water through contracts with Solano Irrigation District (SID). As such, through the Solano Project, the City of Fairfield is entitled to a total of 27,220 acre-feet of water annually. Between the Solano Project, the SWP, and “settlement water,” Fairfield is entitled to a total of 53,698 acre-feet of water annually from its suppliers.<sup>2</sup> The City of Fairfield does not rely on groundwater supplies. **Table 4.13.A: City of Fairfield Projected Water Supplies through 2045** shows the City’s projected water supplies to uses within its jurisdiction through the year 2045.

The *2020 Urban Water Management Plan* for the City of Fairfield has determined that adequate water supplies would be available to users during normal water years, single dry years, and multiple dry year scenarios. **Table 4.13.B: Water Reliability under Normal, Single Dry, and Multiple Dry Year Scenarios** shows that the City of Fairfield would have a surplus of water supplies through 2045 during normal, single dry, and multiple dry year scenarios.

<sup>1</sup> SWP Table A Allocation: Each year, depending on precipitation and snowpack, DWR announces the percent of Table A allocation that each contractor can expected for that year. The allocation is often adjusted several times before a final allocation is made in April of each year.

<sup>2</sup> Kennedy Jenks, *City of Fairfield 2020 Urban Water Management Plan*, Table 2-1: Water Supplies Available to Fairfield, page 2-1, July 1, 2021.

**Table 4.13.A: City of Fairfield Projected Water Supplies through 2045**

Water Supply	2025		2030		2035		2040		2045	
	Reasonably Available Volume (MG)	Total Right or Safe Yield (MG)	Reasonably Available Volume (MG)	Total Right or Safe Yield (MG)	Reasonably Available Volume (MG)	Total Right or Safe Yield (MG)	Reasonably Available Volume (MG)	Total Right or Safe Yield (MG)	Reasonably Available Volume (MG)	Total Right or Safe Yield (MG)
Surface Water (SCWA-DWR State Water Project)	3,970	4,783	3,970	4,783	3,970	4,783	3,970	4,783	3,970	4,783
Surface Water (SCWA-USBRR Solano Project)	8,811	8,869	8,811	8,869	8,811	8,869	8,811	8,869	8,811	8,869
Surface Water (Non-SWP Settlement Water)	2,807	3,845	2,807	3,845	2,807	3,845	2,807	3,845	2,807	3,845
<b>Total</b>	<b>15,588</b>	<b>17,497</b>	<b>15,588</b>	<b>17,497</b>	<b>15,588</b>	<b>17,497</b>	<b>15,588</b>	<b>17,497</b>	<b>15,588</b>	<b>17,497</b>

Source: Kennedy Jenks, *City of Fairfield 2020 Urban Water Management Plan*, Table 4-6: DWR Retail: Water Supplies – Projected, page 4-8. Website: <https://www.fairfield.ca.gov/home/showpublisheddocument/5128/637648843436330000> (accessed March 22, 2022).

DWR = Department of Water Resources  
MG = million gallons  
SCWA = Sacramento County Water Agency  
SWP = State Water Project  
USBRR = U.S. Bureau of Reclamation

**Table 4.13.B: Water Reliability under Normal, Single Dry, and Multiple Dry Year Scenarios**

	2025	2030	2035	2040	2045
<b>Normal Year (acre-feet/year)</b>					
Supply Totals	15,588	15,588	15,588	15,588	15,588
Demand Totals	7,106	7,647	7,776	8,152	8,339
<b>Difference</b>	<b>8,482</b>	<b>7,941</b>	<b>7,812</b>	<b>7,436</b>	<b>7,249</b>
<b>Single Dry Year (acre-feet/year)</b>					
Supply Totals	11,786	11,786	11,786	11,786	11,786
Demand Totals	7,106	7,647	7,776	8,152	8,339
<b>Difference</b>	<b>4,680</b>	<b>4,139</b>	<b>4,009</b>	<b>3,634</b>	<b>3,446</b>
<b>Multiple Dry Year (acre-feet year)</b>					
<b>Year 1</b>	Supply Totals	13,188	13,188	13,188	13,188
	Demand Totals	7,106	7,647	7,776	8,152
	<b>Difference</b>	<b>6,082</b>	<b>5,541</b>	<b>5,411</b>	<b>5,036</b>
<b>Year 2</b>	Supply Totals	12,471	12,471	12,471	12,471
	Demand Totals	7,106	7,647	7,776	8,152
	<b>Difference</b>	<b>5,365</b>	<b>4,824</b>	<b>4,694</b>	<b>4,319</b>
<b>Year 3</b>	Supply Totals	11,275	11,275	11,275	11,275
	Demand Totals	7,106	7,647	7,776	8,152
	<b>Difference</b>	<b>4,169</b>	<b>3,628</b>	<b>3,498</b>	<b>3,123</b>
<b>Year 4</b>	Supply Totals	11,753	11,753	11,753	11,753
	Demand Totals	7,106	7,647	7,776	8,152
	<b>Difference</b>	<b>4,647</b>	<b>4,106</b>	<b>3,976</b>	<b>3,601</b>
<b>Year 5</b>	Supply Totals	12,471	12,471	12,471	12,471
	Demand Totals	7,106	7,647	7,776	8,152
	<b>Difference</b>	<b>5,365</b>	<b>4,824</b>	<b>4,694</b>	<b>4,319</b>

Source: Kennedy Jenks, *City of Fairfield 2020 Urban Water Management Plan*, July 1, 2021, page 6-5.

Notes: Amounts in million gallons (MG).

The City of Fairfield delivers water supplies to customers through an extensive existing infrastructure system consisting of water mains and water laterals. Water service to the project site is currently provided by a 2.5-inch water line in the drive aisle connecting Business Center Drive to the Fairfield Business Center. The 2.5-inch water line connects to a 4-inch water line that connects to a 12-inch water main in Business Center Drive. The 12-inch water main connects to a 16-inch water main in Green Valley Road.

#### 4.13.1.2 Wastewater (Sanitary Sewer) System

The Fairfield-Suisun Sewer District (FSSD) provides sanitary sewer conveyance and treatment to residents and businesses in the Cities of Fairfield and Suisun. The FSSD collects and treats wastewater from users through 70 miles of 12-inch to 48-inch diameter pipes, 13 pumping stations, and the regional wastewater treatment plant (WWTP). The WWTP, located at 1010 Chadbourne Road in Fairfield, is approximately 3 miles east of the project site. The WWTP has a build-out capacity to treat 23 million gallons per day (mgd) of effluent. The WWTP currently treats an average dry weather flow

ranging between 10 to 15 mgd.<sup>3</sup> As such, the WWTP is currently operating at under capacity conditions. According to the FSSD, residential uses within its service area generate approximately 128.4 gallons per day of wastewater.<sup>4,5</sup>

Wastewater conveyance infrastructure currently exists in the vicinity of the project site. A 10-inch-diameter sanitary sewer pipe is located in Business Center Drive and connects to a 30-inch-diameter main located just southwest of the Business Center Drive/Neitzel Road intersection. The proposed project would connect to this existing infrastructure.

#### 4.13.1.3 Storm Drainage System

The FSSD also provides a stormwater conveyance infrastructure system to the cities of Fairfield and Suisun that collects stormwater and discharges into the Suisun Marsh. The stormwater system is separate from the wastewater system that transports sanitary sewage to the WWTP.<sup>6</sup> In Fairfield, all development projects must comply with the Municipal Regional Stormwater (MRP) National Pollutant Discharge Elimination System (NPDES) Permit issued by the San Francisco Bay Regional Water Quality Control Board (San Francisco Bay RWQCB) in October 2009. Development projects within the City of Fairfield, consistent with the MRP, are required to address stormwater quality during development review, and best management practices (BMPs) must be used during construction and post-construction to mitigate potential impacts from construction and operational stormwater flows.<sup>7</sup>

Stormwater infrastructure in the form of manholes, drainage grates, and 18-inch, 36-inch, 48-inch, and 72-inch storm drainpipes are located southeast of the project site in Business Center Drive.

#### 4.13.1.4 Solid Waste

The City of Fairfield contracts with Republic Services (franchise hauler) to collect and transport solid waste and recyclable materials for disposal and recycling. Non-hazardous solid waste is hauled to Potrero Hills Landfill, located at 3675 Potrero Hills Lane in Suisun City, approximately 8.7 miles from the project site. Republic Services offers recycling and hazardous waste pick-up and disposal to residents and businesses in the City of Fairfield.

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<sup>3</sup> Fairfield-Suisun Sewer District. 2022. *2022 Sewer Rate and Capacity Charge Study Final Report*, January 25, 2022, page 3.

<sup>4</sup> Fairfield-Suisun Sewer District (FSSD). 2022. *2022 Sewer Rate and Capacity Charge Study Final Report*, January 25, 2022, page ES-5. Website: <https://www.fssd.com/wp-content/uploads/2022/03/Fairfield-Suisun-2022-Sewer-Rate-Study-3.22.22-Final.pdf> (accessed April 25, 2022).

<sup>5</sup> Multi-Family Residential wastewater generation calculated based on Table 3 of the *2022 Sewer Rate and Capacity Charge Study Final Report*. 377,300,000 gallons annually/365 days = 1033698.63 gallons per day/8,050 multi-family residential units = 128.4 gallons of wastewater generated per day per multi-family residential unit.

<sup>6</sup> Fairfield-Suisun Sewer District. *Stormwater Management*. Website: <https://www.fssd.com/stormwater-management/> (accessed March 24, 2022).

<sup>7</sup> Fairfield-Suisun Urban Runoff Management Program. 2012. *Stormwater C.3 Guidebook*, October 2012. Website: [https://www.suisun.com/wp-content/files/Stormwater\\_C.3\\_Guidebook.pdf](https://www.suisun.com/wp-content/files/Stormwater_C.3_Guidebook.pdf) (accessed March 24, 2022).

Potrero Hills Landfill has a maximum permitted daily intake of 4,330 tons of solid waste, a maximum permitted capacity of 83.1 million cubic yards (about 49.9 million tons of solid waste), and as of 2006, a remaining capacity of 13.87 million cubic yards (about 8.3 million tons of solid waste).<sup>8,9</sup> The Potrero Hills Landfill currently intakes about 3,700 tons of solid waste per day (averaged over any consecutive 7-day period) and has an estimated closing year of 2048.<sup>10</sup>

#### 4.13.1.5 Electricity and Natural Gas

The Pacific Gas & Electric Company (PG&E) provides electrical and natural gas service to customers in the City of Fairfield. PG&E charges connection and user fees for all new development in addition to sliding rates for electrical and natural gas service based on use. Electrical services are currently available at the project site. Title 24, California's Energy Efficiency Standards for Residential and Nonresidential Buildings, details requirements to achieve minimum energy efficiency standards of the State of California. The standards regulate energy consumed by new residential building construction for heating, cooling, ventilation, water heating, and lighting. The local building permit process verifies and enforces compliance with these standards.

In 2020, customers within Solano County consumed about 3,321 gigawatt hour (GWh) (1,192 GWh for the residential sector and 2,129 GWh for the nonresidential sector) of electricity.<sup>11</sup> In 2021, the total natural gas consumption by residential uses in the City of Fairfield was about 217,356,173 British thermal units (BTU)/year.<sup>12</sup>

#### 4.13.1.6 Telecommunications

Residents and businesses in the City of Fairfield receive telecommunications services from private providers that include AT&T, Comcast, DirectTV, DISH Network, Excede, and Verizon.

### 4.13.2 Regulatory Setting

The following discusses applicable laws, regulations, standards, and policies related to utilities and service systems, including those from State and local agencies. Federal and regional regulations pertaining to utilities and service systems would not apply.

#### 4.13.2.1 State Laws and Regulations

**California Integrated Waste Management Act (Assembly Bill 939).** In 1989, the California Legislature enacted the California Integrated Waste Management Act (Assembly Bill [AB] 939), which requires the diversion of waste materials from landfills to preserve landfill capacity and

<sup>8</sup> Yolo County Planning and Public Works Department, Division of Integrated Waste Management, 2012. Countywide Siting Element of the Yolo County Integrated Waste Management Plan, August 2012, page 1. 1,200 pounds of solid waste (0.6 tons of solid waste) = 1 cubic yard

<sup>9</sup> California Department of Resources Recycling and Recovery (CalRecycle). Potrero Hills Landfill. Website: <https://www2.calrecycle.ca.gov/SolidWaste/Site/Summary/3591> (accessed March 24, 2022).

<sup>10</sup> CalRecycle. 2021. Potrero Hills Landfill, 5-Year Permit Review Report, October 22, 2021.

<sup>11</sup> California Energy Commission (CEC). 2021. Electricity Consumption by County. Website: [ecdms.energy.ca.gov/elecbycounty.aspx](http://ecdms.energy.ca.gov/elecbycounty.aspx) (accessed March 2022).

<sup>12</sup> CEC. 2020. Natural Gas Consumption by County, Solano County 2020. Website: <http://www.ecdms.energy.ca.gov/gasbycounty.aspx> (accessed March 28, 2022).

natural resources. Cities and counties in California were required to divert 25 percent of solid waste by 1995, and 50 percent of solid waste by 2000. AB 939 further requires every city and county to prepare two documents demonstrating how the mandated rates of diversion will be achieved. The source reduction and recycling element must describe the chief source of the jurisdiction's waste, the existing diversion programs, and current rates of waste diversion and new or expanded diversion programs. The household hazardous waste element must describe each jurisdiction's responsibility in ensuring that household hazardous wastes are not mixed with non-hazardous solid wastes and subsequently deposited at a landfill.

**California Code of Regulations. Title 24: California Building Standards Code.** Title 24, California's Energy Efficiency Standards for Residential and Non-Residential Buildings, requires construction of new buildings and additions to adhere to energy-efficiency standards. These standards include targets for energy efficiency, water consumption, dual-plumbing systems for potable and recyclable water, diversion of construction waste from landfills, and the use of environmentally sensitive materials in construction and design. The City follows the most current State Building Code.

**Urban Water Management Planning Act.** In 1983, the California Legislature enacted the Urban Water Management Planning Act (Water Code Sections 10610–10656). The Act requires that every urban water supplier that provides water to 3,000 or more customers or that provides more than 3,000 acre-feet per year prepare and adopt a UWMP. Water suppliers are to prepare a UWMP within 1 year of becoming an urban water supplier and update the plan at least once every 5 years. The Act also specifies the content that is to be included in an UWMP. It is the intention of the legislature to permit levels of water management planning commensurate with the number of customers served and the volume of water supplied. The Act states that urban water suppliers should make every effort to ensure the appropriate level of reliability in their water service sufficient to meet the needs of their various customer categories during normal, dry, and multiple dry years. The Act also states that the management of urban water demands, and the efficient use of water, shall be actively pursued to protect both the people of the State and their water resources. The City of Fairfield adopted the *2020 Urban Water Management Plan* on July 1, 2021, which forecasts water supplies and demands for the City of Fairfield for 25 years through 2045.<sup>13</sup>

**Senate Bills 610 and 221.** In 2003, Senate Bill (SB) 610 and SB 221 were signed into law by Governor Gray Davis. SB 610 requires public water systems that supply water to proposed projects to determine whether the projected water demand (associated with the proposed project) could be met when existing and planned future uses are considered. For the purposes of SB 610, Water Code Section 10912 (a)(2) requires all projects with a water demand equivalent to 500 or more dwelling units, or which include over 250,000 square feet of commercial office building, to obtain a Water Supply Assessment (WSA) from the urban water provider. In addition, SB 610 requires a quantification of water received by the water provider in prior years from water rights, water supply entitlements, and water service contracts. Under SB 221, approval by a city or county of certain residential subdivisions requires an affirmative written verification of sufficient water supply. The

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<sup>13</sup> Kennedy Jenks. 2021. *City of Fairfield 2020 Urban Water Management Plan*, July 1, 2021. Website: <https://www.fairfield.ca.gov/home/showpublisheddocument/5128/637648843436330000> (accessed March 22, 2022).

proposed project includes the development of a 185-unit apartment building; as such, a WSA is not required for the proposed project.

**The Water Conservation Act of 2009 (Senate Bill x7-7).** SB x7-7 requires all water suppliers to increase water use efficiency. SB x7-7 mandates the reduction of per capita water use and agricultural water use by 20 percent throughout the State by 2020.

**California Energy Commission.** The California Energy Commission (CEC) is the State's primary energy policy and planning agency. The CEC was created by the Legislature in 1974 and is responsible for forecasting future energy needs and keeping historical energy data; licensing thermal power plants 50 megawatts or larger; promoting energy efficiency by setting the State's appliance and building efficiency standards; supporting public interest energy research that advances energy science and technology; supporting renewable energy by providing market support to existing, new, and emerging renewable technologies; developing and implementing the State Alternative and Renewable Fuel and Vehicle Technology Program to reduce the State's petroleum dependency and help attain the State climate change policies; administering more than \$300 million in American Reinvestment and Recovery Act funding through State programs; and planning for and directing the State response to energy emergencies.

#### 4.13.2.2 Local Laws and Regulations

**City of Fairfield General Plan.** The following policies in the *City of Fairfield General Plan* pertaining to utilities and service systems would be applicable to the proposed project:

**Policy PF 1.1:** New development shall be phased according to the capacity of public facilities and services to serve new development.

**Policy PF 2.1:** New development shall be responsible for the public costs attached to each development project, which include, but are not limited to, the acquisition of permanent open space, the provision of adequate school facilities, and the provision of streets, street lighting, sidewalks, landscaping, storm drains, and other infrastructure needs.

**Policy PF 2.2:** New development shall be responsible for paying a financial contribution to mitigate the effect of the development on the provision of such public services as police and fire protection, public education, water, and sewer.

**Policy PF 2.3:** Construction permits shall not be granted until the developer provides for the installation and/or financing of needed public facilities.

**Policy PF 4.1:** The City shall condition approval of new development projects on the availability of adequate water supply and infrastructure to serve the new development.

**Policy PF 4.8:** New development shall include water conservation features and drought resistant landscaping.

**Policy PF 5.6:** Pipes should be sized to provide minimum operating pressure of 45 pounds per square inch (psi) under normal conditions and 20 [pounds per square inch] psi under emergency conditions (e.g., fires).

**Policy PF 6.5:** Require new development to be responsible for construction of all sanitary sewer lines serving such development (including oversizing of sewers if requested by Fairfield-Suisun Sewer District or the City; the costs of oversizing shall be borne by the beneficiary of the oversizing).

**Policy PF 7.1:** Promote water conservation.

**Policy PF 8.1:** The City shall condition approval of development projects on the provision of adequate storm drainage improvements.

**Policy PF 8.5:** Detention basins should be considered for multiple use (recreation, parking, etc.) particularly larger basins, providing the basic detention function is not lost or impaired, and maintenance and liability issues are satisfactorily resolved.

**Policy PF 9.1:** Natural and manmade channels, detention basins, and other drainage facilities shall be maintained to ensure that their full use and carrying capacity is not impaired.

**Policy PF 9.2:** Continue to require new development to discharge storm runoff at volumes no greater than the capacity of any portion of the existing downstream system by utilizing detention or retention or other approved methods, unless the project is providing drainage pursuant to an adopted drainage plan.

**Policy PF 9.3:** All drainage improvements shall comply with the City of Fairfield Standard Specifications and Details, Engineering Design Standards (Section 4 - Storm Drainage).

**Policy PF 12.2:** The City shall continue to circulate development proposals to local utility providers, including Pacific Gas and Electric, Pacific Bell, and local cable television providers, for their review and comment and to ensure that they can and will provide service to development.

**City of Fairfield Municipal Code Sections 25.1501–25.1511.** Sections 25.1501 through 25.1511 of the *City of Fairfield Municipal Code* establish a development impact fee program to partially fund traffic facility construction, urban design facilities construction, public facilities construction, park and recreational facilities construction, and Northeast Area facility construction. Applicants of commercial, industrial, and residential projects would be required to pay their fair share in development impact fees set forth by the *City of Fairfield Municipal Code* to fund improvements in the City of the aforementioned facilities. The fair share fee is determined by the City annually through the Budget and Five-Year Capital Improvement Program.



**City of Fairfield Conditions of Approval.** The City of Fairfield has adopted standard Conditions of Approval (COA) for major development projects. The following COAs related to utilities and service systems would apply to the proposed project.

**COA 4.2:** Trash receptacle(s) are required and shall be enclosed by a six (6) foot high masonry wall with metal, solid view obstructing gates pursuant to City standards. Within multi-family residential projects, all trash enclosures shall be provided with a shade structure. The precise location and construction details shall be subject to review and approval by the Department of Community Development. The enclosure shall include a reinforced concrete apron as approved by the Department of Public Works. All commercial and multifamily residential projects shall meet the requirements of the California Green Building Standards Code pertaining to recyclable materials storage and handling and access to trash enclosures.

**COA 4.3:** It shall be the applicant's responsibility to coordinate the location of all utility equipment with PG&E. Final locations of all above ground equipment must be approved by PG&E, the Community Development Department and Public Works Department prior to issuance of building permits.

**COA 4.4:** All ground-mounted utility appurtenances such as transformers or air conditioning units shall be located out of public view and/or adequately screened through the use of a combination of concrete or masonry walls, or berming, painting and/or landscaping. Said appurtenances shall be indicated on the approved landscape and irrigation plans prior to issuance of building permits.

**COA 6.9:** All electrical equipment shall be located interior to the building (i.e., no exterior electrical cabinets), unless screened from public view in a manner acceptable to the Community Development Department. Any exterior equipment or cabinets shall be depicted on architectural and site plans submitted for plan check, with location of equipment and screening method clearly identified on plans and shall be painted to match the building color upon installation.

#### 4.13.3 Significance Criteria

The significance criteria for utilities and service systems impacts used in this analysis are consistent with Appendix G of the *State CEQA Guidelines*. The proposed project may be deemed to have a significant impact with respect to utilities and service systems if it would:

- **Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.**
- **Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.**

- **Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.**
- **Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.**
- **Comply with federal, State, and local management and reduction statutes and regulations related to solid waste.**

#### 4.13.4 Methodology

The analysis in this section identifies the existing water, wastewater, stormwater, electricity, natural gas, and telecommunications infrastructure and systems that would provide service to the proposed project. The impact analysis is based on data obtained from utility service provider websites and planning documents adopted by the utility providers. Information in this section is also specifically based on the following references: the *City of Fairfield General Plan*, the California Department of Resources Recycling and Recovery (CalRecycle), the City of Fairfield's *2020 Urban Water Management Plan*, and applicant-supplied project site plan and utility plans.<sup>14,15,16</sup>

#### 4.13.5 Project Impacts

The following describes the potential impacts pertaining to utilities and service systems that could result from implementation of the proposed project. As applicable, conditions of approval and mitigation measures are presented to reduce significant impacts.

##### 4.13.5.1 Utility Infrastructure Impacts

**Impact UTL-1: The proposed project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.**

**Water and Wastewater.** Water and wastewater infrastructure and service are located in the immediate vicinity of the project site and are provided by the FSSD. Both fire water lines and domestic water lines would be installed within the project site as part of the proposed project. The proposed project would include the installation of 8-inch and 10-inch fire water lines throughout the site which would connect to six proposed fire hydrants on the site for firefighting purposes. As part of the City's final plan check of the proposed project, the Fairfield Fire Department would review the site plan for proper fire hydrant locations, water pressure requirements, and correctly sized on-site

<sup>14</sup> City of Fairfield. *City of Fairfield General Plan*. Website: <https://www.fairfield.ca.gov/government/city-departments/community-development/planning-division/general-plan/general-plan-documents?locale=en> (accessed April 12, 2022).

<sup>15</sup> California Department of Resources, Recycling, and Recovery (CalRecycle). Website: <https://calrecycle.ca.gov/> (accessed April 12, 2022).

<sup>16</sup> Kennedy Jenks, *City of Fairfield 2020 Urban Water Management Plan*, July 1, 2021. Website: <https://www.fairfield.ca.gov/home/showpublisheddocument/5128/637648843436330000> (accessed April 12, 2022).

fire water lines. A proposed 6-inch domestic water line would cross the hotel property (Residence Inn hotel) to the south of the project site and connect into the 4-inch lateral water line and 12-inch main water line that is currently located in Business Center Drive. The proposed 6-inch domestic water line would connect to the proposed project's apartment building's southeast corner. As part of the City's final plan check of the proposed project, the FSSD would review the project site plan and utility plan to ensure that proper connections to the domestic water supply line in Business Center Drive occur. No improvements to off-site water mains would be needed to serve the project.

The proposed project would include installation of an 8-inch sewer line around the perimeter of the proposed apartment building, beneath the on-site drive aisles. The 8-inch sewer line would connect to the apartment building in five places: three connections on the southeast side of the building, one connection on the northwest side of the building, and one connection on the northwest side of the parking structure. The 8-inch sewer line serving the project site would run southeast through the offsite hotel property (Residence Inn hotel) and connect to the existing 10-inch diameter sewer line in Business Center Drive. From there, wastewater would be conveyed into a 30-inch diameter main and eventually to the FSSD-operated WWTP east of the project site. No improvements to off-site sewer lines would be needed to serve the project.

Based on the FSSD's wastewater generation rate of 128.4 gallons of wastewater per day per multi-family residential unit, the proposed project is estimated to generate approximately 23,754 gallons of wastewater per day or 8,670,210 gallons of wastewater annually. The wastewater generated by the proposed project would be conveyed to and treated at FSSD WWTP, which currently has a daily intake of 15 million gallons of wastewater and a daily intake capacity of 23 million gallons of wastewater. The amount of wastewater generated daily by the proposed project would equate to approximately 0.41 percent of the daily intake capacity remaining at FSSD WWTP. As such, the existing WWTP would be able to accommodate the wastewater generated by the proposed project, and an expansion of the existing WWTP or development of a new WWTP just to accommodate the project's wastewater would not be required.

The environmental impacts associated with the construction of water and sanitary sewer lines developed on the project site as part of the proposed project are analyzed in other sections of this EIR. Impacts from on-site utility trenching and installation on biological resources, cultural and tribal cultural resources, paleontological resources, air quality, and noise have all been considered in the respective topical sections (i.e., **Section 4.3: Biological Resources**, **Section 4.4: Cultural and Tribal Cultural Resources**, **Section 4.6: Geology and Soils**, **Section 4.2: Air Quality**, and **Section 4.9: Noise**) and have been determined to be less than significant or less than significant with the recommended mitigation measures. Implementation of the proposed project would not require or result in the relocation or construction of new or expanded water or wastewater treatment infrastructure or facilities, the construction or relocation of which could cause significant environmental effects. The impact would be less than significant.

**Stormwater Drainage.** Off-site stormwater drainage infrastructure, owned and maintained by FSSD, currently exists around the project site. The proposed project would include the installation of 10-inch, 12-inch, and 24-inch storm drain lines and inlet grates on the project site to adequately convey stormwater flow. A *Preliminary Stormwater Control Plan* has been prepared for the proposed project to ensure that the design of the stormwater drainage system is in compliance with

the Fairfield-Suisun Urban Runoff Management Program *Stormwater C.3 Guidebook*. The proposed project has been designed to convey runoff from four drainage management areas (DMAs) to bio-retention basins located on the site. The retention basins have been designed to accommodate stormwater flows from impervious areas on the project site. The proposed project would construct four bio-retention basins that would provide about 8,040 square feet of treatment area in order to retain and treat stormwater runoff from a total area of 6,951 square feet.<sup>17</sup>

Based on the DMA areas and stormwater expected to be generated by the proposed project, the planned detention basins would be adequately sized to capture the on-site stormwater. The detention basins would provide water quality benefits by reducing pollutants and sediments before stormwater runoff from the site is conveyed through a storm drain located in Business Center Drive to a regional detention basin located south of Business Center Drive, and ultimately discharged into Grizzly Bay approximately 7 miles from the project site. The existing stormwater infrastructure in Business Center Drive and the receiving detention basin south of Business Center Drive were designed to accommodate flows resulting from build-out of the project site regardless of land use type. No off-site stormwater drainage facilities would be modified or constructed to accommodate the project flows.

The environmental impacts associated with the construction of the storm drains and detention basins developed on the project site as part of the proposed project are analyzed in other sections of this EIR. Impacts from on-site grading, utility trenching and pipe installation on biological resources, cultural and tribal cultural resources, paleontological resources, air quality, and noise have all been considered in the respective topical sections (i.e., **Section 4.3: Biological Resources**, **Section 4.4: Cultural and Tribal Cultural Resources**, **Section 4.6: Geology and Soils**, **Section 4.2: Air Quality**, and **Section 4.9: Noise**) and have been determined to be less than significant or less than significant with the recommended mitigation measures. For these reasons, implementation of the proposed project would not require or result in the relocation or construction of new or stormwater infrastructure or facilities, the construction or relocation of which could cause significant environmental effects. The impact would be less than significant.

**Electric Power and Natural Gas.** The proposed project would connect to the existing electrical grid system infrastructure in proximity of the site and would receive service from PG&E. The proposed project does not include any natural gas infrastructure or appliances and no natural gas would be used on site for space or water heating, other than a small amount that would be used in the barbeque pits and would be supplied in tanks. The proposed project would be developed in compliance with California Code Title 24 standards and would be equipped with Energy Star certified appliances that would reduce the use of electricity. All lighting associated with the proposed project, including outside lighting, building façade lighting, parking structure lighting, and landscape lighting would utilize energy efficient light-emitting diode (LED) light fixtures and bulbs. Electrical vehicle (EV) charging facilities would be included in the surface parking areas around the apartment building and in the parking structure on the northeast corner of the site. Finally, the proposed project would be developed to facilitate future rooftop photo voltaic (PV) solar installation, through the reservation of a minimum of 15 percent of the roof area with PV

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<sup>17</sup> TSD Engineering, Inc. 2022. *Preliminary Stormwater Control Plan Green Valley -3 Apartments*, Table 1-DMA Summary, February 25, 2022.

infrastructure installation (i.e., structural elements, conduit). Implementation of these features as part of the proposed project would reduce the demand for electricity. The proposed project, upon full occupancy, is estimated to demand 1,124,294 kilowatt-hours (kWh) of electricity annually.<sup>18</sup> Total electricity demand in Solano County in 2020 was approximately 3,320.8 GWh (3,321 million kWh). Therefore, operation of the proposed project would increase the annual electricity consumption in Solano County by less than 0.01 percent.

Project construction would require small quantities of electricity and no natural gas; therefore, the nominal demand for electricity during construction would not require the development of new off-site utility infrastructure.

PG&E has developed their electrical infrastructure and delivery system based on build-out of local jurisdictions. As such, the proposed project would be accommodated by existing PG&E infrastructure, and new off-site infrastructure would not need to be developed or expanded, which could cause significant environmental effects. The impact would be less than significant.

**Telecommunications.** AT&T, Comcast, DirectTV, DISH Network, Excede, and Verizon would provide telecommunication services to the project site. The proposed project would generate additional demand on telecommunication service providers; however, operation, maintenance, and capital improvement costs would be funded through developer fees and future customer billing. Telecommunication lines would be undergrounded on the project site in utility trenches; as such, there would not be any off-site environmental effects beyond on-site construction effects discussed and analyzed in this EIR. Implementation of the proposed project would not result in the relocation or construction of new or expanded telecommunications facilities that could cause significant environmental effects. The impact would therefore be less than significant.

**Level of Significance prior to Mitigation:** Less than Significant

**Mitigation Measures:** No mitigation measures are required.

**Level of Significance after Mitigation:** Not Applicable

#### 4.13.5.2 Sufficient Water Supplies

**Impact UTL-2: The proposed project and reasonably foreseeable development would be served by sufficient water supply during normal, dry and multiple dry years.**

The FSSD provides potable and non-potable water service to the City of Fairfield, including the project site. The City of Fairfield receives potable and non-potable surface water supplies through the Solano Project, the State Water Project (SWP), and “settlement water” obtained through negotiations with the DWR in 2003. As shown above in **Table 4.13.B**, the City of Fairfield would have a surplus of water supply during normal, dry, and multiple dry years through 2045. Under a worse-case scenario, multiple dry year “year 5” in 2045, the City would have a water surplus of 4,131 acre-

<sup>18</sup> Annual electricity demand for the operation of the proposed project was determined through California Emissions Estimator Model (CalEEMod) v.2020.4.0 modeling.

feet. The proposed project is estimated to demand 10,554,157.5 gallons of water annually or 32.4 acre-feet of water annually.<sup>19</sup> The amount of water needed to serve the proposed project would, therefore, represent 0.8 percent of the surplus amount of water the City would have during year 5 of a multiple dry year drought in 2045.

The proposed project would include specific design features that would promote the conservation of both potable and non-potable water. Low flow fixtures would be installed in each apartment unit reducing the amount of potable water used by residents. Pursuant to Chapter 22A Water Efficient Landscaping in the *City of Fairfield Municipal Code*, the landscaping proposed as part of the project would include drought-tolerant plants and low flow (drip) irrigation.<sup>20</sup>

Based on the above, the City of Fairfield would have sufficient water supplies to serve the proposed project as well as reasonably foreseeable development during normal, dry, and multiple dry years through 2045. The impact would be less than significant.

**Level of Significance prior to Mitigation:** Less than Significant

**Mitigation Measures:** No mitigation measures are required.

**Level of Significance after Mitigation:** Not Applicable

#### 4.13.5.3 Wastewater Treatment Capacity

**Impact UTL-3: The proposed project would not result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.**

As discussed under **Impact UTIL-1**, the increased wastewater generated by the proposed project can be accommodated within the existing design capacity of the FSSD WWTP, which would serve the project site. The proposed project is estimated to generate approximately 23,754 gallons of wastewater per day or 8.67 million gallons of wastewater annually.<sup>21</sup> The wastewater generated by the proposed project would be conveyed to and treated at FSSD WWTP, which currently has a daily

<sup>19</sup> Fairfield-Suisun Sewer District. 2022 Sewer Rate and Capacity Charge Study, Table 3: Wastewater Customer Account Data and Estimated Wastewater Flows and Loadings. Website: <https://www.fssd.com/wp-content/uploads/2022/02/Fairfield-Suisun-2022-Sewer-Rate-Study-1.24.22-Final.pdf> (accessed March 22, 2022). 156.3 gallons per day per unit x 185 multi-family residential units = 28,915.5 gallons of water per day or 10,554,157.5 gallons of water annually or 32.4 acre-feet of water annually demanded by the project. The demand factor of 156.3 gallons was derived from the conversion of 614,100 hundred cubic feet of water (or 61,410,000 cubic feet of water) used in a year divided by 365 which equals 1682.47 hundred cubic feet (or 168,247 cubic feet) per day. The 1682.47 hundred cubic feet per day of water was converted to gallons which equals 1,258,574.966 gallons of water per day divided by 8,050 multi-family residential units for a demand factor of 156.3 gallons of water per day per multi-family residential unit.

<sup>20</sup> *City of Fairfield Municipal Code*, Chapter 22A Water Efficient Landscaping.

<sup>21</sup> Fairfield-Suisun Sewer District. 2022 Sewer Rate and Capacity Charge Study Final Report, January 25, 2022, page ES-5. 128.4 gallons/day/unit x 185 units = 23,754 gallons of wastewater daily = 23,754 x 365 = 8,670,210 gallons of wastewater generated annually.

intake of 15 million gallons of wastewater and a daily intake capacity of 23 million gallons of wastewater. The amount of wastewater generated daily by the proposed project would equate to approximately 0.29 percent of the daily intake capacity remaining at FSSD WWTP. As such, the existing WWTP has adequate capacity to serve the project's estimated wastewater generation in addition to FSSD's existing commitments. The impact would be less than significant.

**Level of Significance prior to Mitigation:** Less than Significant

**Mitigation Measures:** No mitigation measures are required.

**Level of Significance after Mitigation:** Not Applicable

#### 4.13.5.4 Solid Waste Generation

**Impact UTL-4: The proposed project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.**

The City of Fairfield contracts with Republic Services for solid waste collection and disposal services from residential uses within the City limits. Solid waste collected in the City is currently disposed of at Potrero Hills Landfill. As noted earlier, Potrero Hills Landfill has a maximum permitted daily intake of 4,330 tons of solid waste and currently intakes about 3,700 tons of waste per day. There is therefore about 15 percent of daily intake capacity available at the landfill. Furthermore, the landfill has an estimated closure date of 2048. As the project site is vacant, solid waste generation due to demolition of existing structures would not occur. However, construction of the proposed project does have the potential to generate nominal amounts of solid waste during construction that would either be recycled or disposed of at the landfill serving the City of Fairfield. Organic plant matter that currently occupies the project site would either be disposed of or may be reused on site as a recycling/reuse practice. Once operational, the proposed project would generate solid waste that will require collection and disposal. It is estimated that the proposed project would generate approximately 3,917.4 pounds or about 1.96 tons of solid waste daily, which would result in approximately 714.9 tons or 466.47 cubic yards of solid waste annually.<sup>22,23</sup>

Potrero Hills Landfill has a projected lifespan through 2048, and a remaining capacity of about 13.87 million cubic yards (or 8.3 million tons of solid waste). The landfill therefore has enough capacity remaining to adequately dispose of the solid waste that would be generated by the proposed project. Development of the proposed project would not require the expansion of landfill capacity or the need to construct a new landfill, and this impact would be less than significant.

<sup>22</sup> CalRecycle. Jurisdiction Diversion/Disposal Rate Summary, City of Fairfield. Website: <https://www2.calrecycle.ca.gov/LGCentral/DiversionProgram/JurisdictionDiversionPost2006> (accessed March 24, 2022).

<sup>23</sup> Generation Rate = 7.7 pounds per day per resident. 185 residential units x 2.75 people per unit = 509 residents. 7.7 pounds of solid waste per day x 509 residents = 3,917.4 pounds per day or 1.96 tons per day (1,429,841.9 pounds of solid waste annually or 714.9 tons of solid waste annually).

In 2006, the City of Fairfield had a solid waste diversion rate of 65 percent and continued to maintain diversion rates above 50 percent through 2021.<sup>24</sup> The proposed project, as discussed in **Chapter 3.0: Project Description** of this EIR, would incorporate sustainable development features that would aim to minimize waste disposed of in landfills. The City of Fairfield, pursuant to the City Code, would require the residential uses associated with the proposed project to subscribe to solid waste disposal and recycling services provided by Republic Services. Incorporating such features into the proposed project and requiring recycling services would ensure that the proposed project would support the diversion goals of Fairfield. Therefore, the proposed project would be consistent with SB 1016 and would not impair the attainment of SB 1016 diversion goals. Impacts would therefore be less than significant.

**Level of Significance prior to Mitigation:** Less than Significant

**Mitigation Measures:** No mitigation measures are required.

**Level of Significance after Mitigation:** Not Applicable

#### 4.13.5.5 Solid Waste Policy

**Impact UTL-5: The proposed project would comply with federal, State, and local management and reduction statutes and regulations related to solid waste.**

Solid waste practices in California are governed by multiple federal, State, and local agencies that enforce legislation and regulations ensuring that landfill operations minimize impacts to public health and safety and the environment. Solid waste generated by the proposed project would be transported to Potrero Hills Landfill. An important part of both landfill's missions is to apply sound environmental practices to ensure compliance with these regulations. Both landfills are also obligated to obtain a Solid Waste Facilities Permit, Storm Water Discharge Permits, and permits to construct and operate gas management systems and meet Water Discharge Requirements. The Local Enforcement Agency, the Yolo Solano Air Quality Management District, and the RWQCB enforce landfill regulations related to health, air quality, and water quality, respectively. As a residential development, the proposed project would not generate any unusual wastes and would generate municipal solid waste, similar to that generated in all residential areas. Further, as shown in **Impact UTL-4** above, the increased solid waste added by the proposed project per day would not cause the landfill to exceed its maximum permitted daily intake. Therefore, the proposed project would not interfere or affect Potrero Hills Landfill's compliance with the regulatory requirements.

AB 939 changed the focus of solid waste management from landfill to diversion strategies such as source reduction, recycling, and composting. The purpose of the diversion strategies is to reduce dependence on landfills for solid waste disposal. AB 939 established mandatory diversion goals of 25 percent by 1995 and 50 percent by 2000. After 2000, SB 1016 was enacted requiring CalRecycle to track and monitor solid waste generation rates on a per capita basis. The per capita basis makes the process of solid waste diversion goal measurements as established by the Integrated Waste

<sup>24</sup> CalRecycle. Jurisdiction Diversion/Disposal Rate Summary City of Fairfield 2006. Website: <https://www2.calrecycle.ca.gov/LGCentral/DiversionProgram/JurisdictionDiversionSummary> (accessed March 24, 2022).



Management Act of 1989 (SB 939) simpler, timelier, and more accurate.<sup>25</sup> Per capita solid waste generation rates and total annual solid waste disposal volumes for the City of Fairfield between 2010 and 2019 are shown in **Table 4.13.C: Solid Waste Generation Rates in the City of Fairfield**.

**Table 4.13.C: Solid Waste Generation Rates in the City of Fairfield**

Year	Waste Generation Rates (pounds/person/day)		Total Disposal Tonnage (tons/year)
	Per Resident	Per Employee	
2010	4.8	15.4	90,883
2011	4.4	13.4	83,995
2012	4.4	13.5	85,167
2013	4.1	12.6	80,840
2014	3.9	11.7	77,332
2015	4.2	13.0	86,705
2016	7.2	21.6	146,568
2017	7.6	23.1	160,002
2018	7.7	22.6	162,434
2019	7.4	21.6	158,270
2020	7.4	21.6	162,068
<b>CalRecycle Disposal Rate Target</b>	<b>8.5</b>	<b>22.7</b>	--

Source: California Department of Resources Recycling and Recovery (CalRecycle). Jurisdiction Diversion/Disposal Rate Summary City of Fairfield. Website: <https://www2.calrecycle.ca.gov/LGCentral/DiversionProgram/JurisdictionDiversionPost2006> (accessed March 29, 2022).

Notes: Years 2016 through 2019 have been reviewed by CalRecycle but are awaiting review and approval by the City of Fairfield. Year 2020 data have not been reviewed by CalRecycle or been approved by the City of Fairfield.

The City of Fairfield complied with State requirements to reduce the volume of solid waste disposed in landfills through recycling and reuse of solid waste. As shown in **Table 4.13.C**, both the per capita waste generation rates and the total annual disposal tonnage in the City of Fairfield were at their lowest levels in 2014. The City’s per capita disposal rate in 2014 was 3.9 pounds per person per day for residents. Although the per capita disposal rate for both residents and employees in Fairfield have gone up since 2014, the City’s 2020 per capita disposal rates satisfies the target rate established by CalRecycle of 8.5 pounds per person per day for residents and 22.7 for employees. Household waste recycling services would be provided to residents of the proposed project to comply with State-mandated solid waste reduction goals. Therefore, the proposed project would comply with federal, State, and local statutes and regulations related to solid waste. The impact would be less than significant.

**Level of Significance prior to Mitigation:** Less than Significant

**Mitigation Measures:** No mitigation measures are required.

**Level of Significance after Mitigation:** Not Applicable

<sup>25</sup> CalRecycle. *Per Capita Disposal and Goal Measurement (2007 and later)*. Website: <https://calrecycle.ca.gov/lgcentral/basics/percapitadsp/> (accessed April 25, 2022).

#### 4.13.5.6 Cumulative Impacts

**Cumulative Impact C-UTL-1: The proposed project in conjunction with other past, present and reasonably foreseeable future development within a 1.5-mile radius of the proposed project would not result in a significant cumulative impact on utilities and service systems.**

The cumulative geographic context for utilities consists of the project site in addition to the related projects identified in **Table 4.A: Cumulative Projects in the Vicinity of the Project Site** in **Chapter 4.0: Environmental Setting, Impacts, and Mitigation Measures** of this EIR within a 1.5-miles radius of the project site. Development of the proposed project would increase the intensity of residential development within the vicinity of the project site; however, other development projects are dispersed geographically throughout the City and in the 1.5-mile radius around the project site such that they would not combine with the project to result in cumulative impacts related to utilities.

**Water Supply.** The proposed project and the related projects within a 1.5-mile radius as listed in **Table 4.A: Cumulative Projects in the Vicinity of the Project Site** in **Chapter 4.0: Environmental Setting, Impacts, and Mitigation Measures** of this EIR would receive potable and non-potable water from the FSSD. **Table 4.13.D: Cumulative Development Water Demand** shows that the proposed project combined with the related projects would demand an estimated 56.7 million gallons of water annually or 174.2 acre-feet of water annually.

**Table 4.13.D: Cumulative Development Water Demand**

Use	Size	Demand Factor	Total Water Demand
Residential – Single-Family	143 du	300.6 gpd/unit <sup>1</sup>	42,985.8
Residential – Multi-Family	306 du	156.3 gpd/unit <sup>2</sup>	47,827.8
Hotel	104 rooms	134 gpd/room <sup>3</sup>	13,396
Industrial	757,000 sq ft (17.38 acres)	1,285.4 gpd/acre <sup>4</sup>	22,341.9
<b>Subtotal</b>			<b>126,551.5</b>
<b>Proposed Project</b>			<b>28,915.5</b>
<b>Gallons/day</b>			<b>155,467.0</b>
<b>Gallons/year</b>			<b>56,745,455</b>
<b>Acre-feet of water/day</b>			<b>0.48</b>
<b>Acre-feet of water/year</b>			<b>174.15</b>

Source: LSA (May 2022).

<sup>1</sup> Fairfield-Suisun Sewer District. *2022 Sewer Rate and Capacity Charge Study Final Report*, January 25, 2022. The demand factor was calculated as follows: 4,253,700 hundred cubic feet of water (or 425,370,000 cubic feet of water) in one year divided by 365 days equals 11,653.97 hundred cubic feet (or 1,165,397 cubic feet) of water per day. The 11,653.97 hundred cubic feet of water per day was converted to gallons which equates to 8,717,774.9979 gallons of water per day. The 8,717,774.9979 gallons of water per day was then divided by 29,000 single-family residential units to get a demand factor of 300.6 gallons per day per unit of water.

<sup>2</sup> Fairfield-Suisun Sewer District. *2022 Sewer Rate and Capacity Charge Study Final Report*, January 25, 2022. The demand factor of 156.3 gallons was derived from the conversion of 614,100 hundred cubic feet of water (or 61,410,000 cubic feet of water) used in a year divided by 365 which equals 1682.47 hundred cubic feet (or 168,247 cubic feet) per day. The 1682.47 hundred cubic feet per day of water was converted to gallons which equals 1,258,574.966 gallons of water per day. This number was divided by 8,050 multi-family residential units which provided a demand factor of 156.3 gallons of water per day per multi-family residential unit.

<sup>3</sup> The 134 gpd/ksf demand factor for hotel use was estimated based on the City of Ventura Water Department (Ventura Water) Final Water Demand Factor Study, prepared by Wood Rodgers, April 8, 2020, Table 10 Proposed Demand Factors, Website: <https://www.cityofventura.ca.gov/DocumentCenter/View/21211/Water-Demand-Factor-Study> (accessed May 17, 2022). The City of Fairfield does not have a water demand factor for hotel use, and this estimate is based on the best available data.

<sup>4</sup> Demand factor based on input provided by the City of Fairfield Department of Public Works (May 13, 2022). Self-Storage uses are not included in this calculation as they do not demand water.

du = dwelling units

gpd = gallons per day

sq ft = square foot/feet

The City of Fairfield *2020 Urban Water Management Plan* indicates that the City would have adequate water supplies through 2045 with a surplus amount equating to 4,131 acre-feet under the worst- case scenario of Year 5 of a multi-dry year. The amount of water demanded by the proposed project and related projects in 2045 would equate to about 4.2 percent of the water surplus in Year 5 of a multi-dry year. Therefore, the project combined with related projects would not result in the need for new or expanded water supply entitlements, and the cumulative impact would be less than significant.

**Wastewater.** The proposed project combined with the related projects would increase wastewater that would be generated and treated at the FSSD WWTP. The WWTP has a current daily intake of 15 million gallons of wastewater and a daily intake capacity of 23 million gallons of wastewater.

**Table 4.13.E: Cumulative Development Wastewater Generation** shows that the proposed project combined with the related projects would generate an estimated 110,372.2 gallons of wastewater per day that would be conveyed to and treated at the WWTP.

**Table 4.13.E: Cumulative Development Wastewater Generation**

Use	Size	Generation Factor	Total Wastewater Generation (gallons)
Residential – Single-Family	143 du	202.6 gpd/unit <sup>1</sup>	28,971.8
Residential – Multi-Family	306 du	128.4 gpd/unit <sup>2</sup>	39,240.4
Hotel	104 rooms	60 gpd/room <sup>3</sup>	6,240
Industrial	757,000 sq ft (17.38 acres)	700 gpd/acre <sup>4</sup>	12,166
<b>Subtotal</b>			<b>86,618.2</b>
<b>Proposed Project</b>			<b>23,754</b>
<b>Total gallons per day</b>			<b>110,372.2</b>
<b>Total gallons per year</b>			<b>40,285,853</b>

Source: LSA (May 2022).

- <sup>1</sup> Fairfield-Suisun Sewer District. *2022 Sewer Rate and Capacity Charge Study Final Report*, January 25, 2022. The generation factor for residential single-family was derived from the following: 2,144.2 million gallons of wastewater annually/365 days is equal to 5,874,520.5 gallons of wastewater per day for 29,000 single-family residential units which equates to a generation factor of 202.6 gallons of wastewater per day per single-family residential unit.
- <sup>2</sup> Fairfield-Suisun Sewer District. *2022 Sewer Rate and Capacity Charge Study Final Report*, January 25, 2022. Multi-Family Residential wastewater generation calculated based on Table 3. 377,300,000 gallons annually/365 days = 1033698.63 gallons per day/8,050 multi-family residential units = 128.4 gallons of wastewater per day per multi-family residential unit.
- <sup>3</sup> 60 gallons per day/room generation factor for hotel use obtained from County of Napa Planning, Building, and Environmental Services Department, Draft Environmental Impact Report Oak Knoll Hotel Project, Table 3.8-1, June 2018, Website: <https://www.countyofnapa.org/DocumentCenter/View/8879/Napa-County-Oak-Knoll-Hotel-DEIR-PDF?bidId=> (accessed May 17, 2022). The City of Fairfield does not have a wastewater demand factor for hotel use, and this estimate is based on the best available data.
- <sup>4</sup> 700 gpd/acre generation factor for industrial use obtained from Vallecitos Water District, 2018 Water, Wastewater, and Recycled Water Master Plan, Table 6-1 Wastewater Unit Generation Rates, October 2018, Website: <https://www.vwd.org/home/showpublisheddocument/10656/636752049380230000> (accessed May 17, 2022). The City of Fairfield does not have a water demand factor for industrial use, and this estimate is based on the best available data.

Self-Storage uses are not included in this calculation as they do not generate wastewater.

du = dwelling unit  
 gpd = gallons per day  
 sq ft = square foot/feet

The wastewater generated by the proposed project and related projects would increase the wastewater conveyed to the WWTP to 15,110,372.2 gallons daily. This total would represent 65.7 percent of the daily intake capacity of the WWTP; therefore, the existing WWTP would adequately serve the existing wastewater generated in the City as well as the wastewater generated by the proposed project and related projects. Therefore, the project combined with related projects would not result in the need for new or expanded wastewater infrastructure, and the cumulative impact would be less than significant.

**Stormwater Drainage.** The proposed project combined with the related projects would increase impervious surfaces that would have the potential to generate additional volumes of runoff that may cause flooding in waterways within the City. All future development in the City of Fairfield would be required to demonstrate that stormwater mains are sized adequately enough to accommodate stormwater flows. The existing storm drain system in the vicinity of the proposed project has been designed to accommodate flows from buildout of the project site as part of the Business Park development. Therefore, the project combined with related projects would not result in the need for new or expanded storm water drainage infrastructure, and the cumulative impact would be less than significant.

**Solid Waste.** Solid waste generated by the proposed project and related projects would be disposed of at Potrero Hills Landfill. Potrero Hills Landfill has a projected lifespan through 2048, and has enough capacity remaining to adequately dispose of the solid waste that would be generated by the proposed project and related projects. Additionally, the City of Fairfield would continue to maximize the diversion of solid waste and meet SB 1016 standards. Therefore, the project combined with related projects would not result in the need for new or expanded landfills or solid waste transfer sites, and the cumulative impact would be less than significant.

**Electricity and Natural Gas.** The proposed project and related projects are all located in the City of Fairfield in urban areas where electrical and natural gas infrastructure exists. The proposed project does not include any natural gas infrastructure or appliances and no natural gas would be used on site for space or water heating other than a small amount that would be used in the barbeque pits and would be supplied in tanks. The proposed project and related projects would connect to existing off-site electrical infrastructure and would include the undergrounding of needed infrastructure on site.

The proposed project, upon full occupancy, is estimated to demand 1,124,294 kWh of electricity annually.<sup>26</sup> Total electricity demand in Solano County in 2020 was approximately 3,320.8 GWh (3,321 million kWh). The proposed project in itself would not require the construction of new power generation facilities; however, combined with the demand for electricity associated with other proposed and related projects in the region, expansion or construction of new electrical substations may be required. PG&E has developed their electrical infrastructure and delivery system based on build-out of local jurisdictions (including that of the City of Fairfield). As such, the proposed project and related projects would be accommodated by existing PG&E infrastructure, and new off-site

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<sup>26</sup> Annual electricity demand for the operation of the proposed project was determined through California Emissions Estimator Model (CalEEMod) v.2020.4.0 modeling.

infrastructure would not need to be developed or expanded, which could cause significant environmental effects. The cumulative impact would be less than significant.

**Telecommunications.** Telecommunication providers regularly construct cell towers to provide coverage for the continuously growing demand. The proposed project, in conjunction with the related project, and future growth in the County and beyond would be typical of growth patterns and could be accommodated by telecommunication providers. Additionally, telecommunication providers collaborate with jurisdictions to make sure their facilities are adequate to provide for buildout of both cities and counties within their service jurisdictions. Accordingly, the cumulative impact would be less than significant.

**Level of Significance prior to Mitigation:** Less than Significant

**Mitigation Measures:** No mitigation measures are required.

**Level of Significance after Mitigation:** Not Applicable

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