4.13 UTILITIES AND SERVICE SYSTEMS

4.13.1 ENVIRONMENTAL SETTING

Currently, there are no known utility improvements or irrigation within the Project Site other than a raw water line bisecting the northern portion of the Project Site that is owned by the City of Vallejo. Utilities and service systems would be provided to the proposed Project by the Suisun-Solano Water Authority (SSWA), the City of Suisun City, and Fairfield-Suisun Sewer District (FSSD), and Pacific Gas & Electric. The following discussion provides an overview of these utility service providers.

WATER SUPPLY

The Project Site is located adjacent to the SSWA service area. SSWA is a joint powers authority between the City of Suisun City and the Solano Irrigation District under an Implementation Agreement entered into in 1990. The SSWA receives water supplies from the U.S. Bureau of Reclamation's Solano Project and the California Department of Water Resource's State Water Project. SSWA receives Solano Project supplies from its two parties, Suisun City and Solano Irrigation District (SID). Contract entitlements for each agency are summarized in Table 4.13-1.

Table 4.13-1. SSWA Existing (2020) and Projected (2025–2045) Water Supplies (acre-feet per year)

Water Supply Source	2020	2025	2030	2035	2040	2045
Solano Project under contract with Suisun City	521	521	521	521	521	521
Solano Project under contract with Solano Irrigation District[1]	652	170	148	146	137	131
State Water Project under contract with Suisun City[2]	0	424	424	424	424	424
Total Supply	**1,173**	**1,115**	**1,093**	**1,091**	**1,082**	

Notes:

[1] Solano Irrigation District is under contract with SSWA to provide Solano Project water to meet water demands of new development after full utilization of City of Suisun City's allocated supplies.

[2] The Suisun City State Water Project allocation is not currently being diverted and treated by SSWA as no infrastructure is in place to convey water to the Cement Hill Water Treatment Plant.

Source: Maddaus Water Management 2023: Tables 6.8 and 6.9

Currently, Suisun City is unable to directly utilize the State Water Project entitlement due to a lack of a connection to the SSWA water treatment plant (Maddaus Water Management 2023; Kjeldsen, Sinnock & Neudeck, Inc. [KSN] 2022). While the entire Suisun City Solano Project allocation is delivered to SSWA, only a small portion of SID's total Solano Project allocation (141,000 acre-feet per year [afy]) is delivered to SSWA. A joint powers agreement between SID and Suisun City ensures that water will be provided from the SID water supplies to SSWA to ensure sufficient water supplies to meet demands after full utilization of Suisun City's allocated supplies (Maddaus Water Management 2023).

The SSWA's *Urban Water Management Plan* (UWMP) (Maddaus Water Management 2023) addresses water supply and demand issues, water supply reliability, water conservation, and water shortage contingencies within the SSWA's service area. Table 4.13-2 provides data from the UWMP that identifies surface water supply and demand within SSWA's service area from 2025 to 2045 in normal, single-dry, and multiple-dry years (excluding

the proposed Project). According to the UWMP, as shown in Table 4.13-2, water supplies and demands within the SSWA service area would be the same during normal, single-dry, and multiple-dry years. As also shown in Table 4.13-2, SSWA would have water supplies that meet demands in all water years.

Table 4.13-2. Comparison of SSWA Water Supply and Demand in Normal, Single-Dry, and Multiple-Dry Years, 2025–2045 (acre-feet per year)

Water Year Type	2025	2030	2035	2040	2045
Normal Year Supply	1,115	1,093	1,091	1,082	1,076
Normal Year Demand	1,115	1,093	1,091	1,082	1,076
Single-Dry Year Supply	1,115	1,093	1,091	1,082	1,076
Single-Dry Year Demand	1,115	1,093	1,091	1,082	1,076
Multi-Year Drought					
Year 1 Supply	1,115	1,093	1,091	1,082	1,076
Year 1 Demand	1,115	1,093	1,091	1,082	1,076
Year 2 Supply	1,115	1,093	1,091	1,082	1,076
Year 2 Demand	1,115	1,093	1,091	1,082	1,076
Year 3 Supply	1,115	1,093	1,091	1,082	1,076
Year 3 Demand	1,115	1,093	1,091	1,082	1,076
Year 4 Supply	1,115	1,093	1,091	1,082	1,076
Year 4 Demand	1,115	1,093	1,091	1,082	1,076
Year 5 Supply	1,115	1,093	1,091	1,082	1,076
Year 5 Demand	1,115	1,093	1,091	1,082	1,076

Source: Maddaus Water Management 2022: Tables 7.2, 7.3, and 7.4

WATER SUPPLY INFRASTRUCTURE

Currently, there are no public water supply facilities within the Project Site. While there is an existing 36-inch transmission main in Cordelia Road and Pennsylvania Avenue owned by City of Fairfield, the Project does not propose to connect to this transmission main. The proposed Project will connect to an existing 12-inch distribution water main in Cordelia Street, approximately 2,800 feet east of the intersection of Cordelia Street and Pennsylvania Avenue. From the points of connection at each Planning Area, the public 12-inch waterline will become private with new backflow prevention assemblies at each point of connection.

WASTEWATER COLLECTION, AND CONVEYANCE, TREATMENT FACILITIES

The Project Site is not currently within, but is proposed to be annexed to the FSSD. The City of Suisun City and FSSD jointly operate and maintain the wastewater collection system that serves the city. The City, along with the City of Fairfield and Travis Air Force Base, is a "satellite collection system" to FSSD, and owns and operates 74 miles of 10-inch and smaller gravity sewers within its service area (City of Suisun City 2022a).

The FSSD wastewater collection system includes approximately 82 miles of sewer pipelines, including about 67 miles of gravity sewers ranging from 12 to 48 inches in diameter and 15 miles of force mains ranging from 4 to 48 inches. The system includes four major wastewater pump stations (Cordelia, Central, Suisun, and Inlet), three other trunk system pump stations, and seven other smaller wastewater lift stations (Woodard & Curran 2020a). The four major pump stations discharge directly into the Fairfield-Suisun Subregional Wastewater Treatment Plant (WWTP) headworks. Nine smaller lift stations discharge to gravity sewers within the four major drainage

basins (FSSD 2019). Within the vicinity of the Project Site, a 27-inch sewer main is located at the intersection of Beck Avenue and Cordelia Road.

Suisun City and its Planning Area are located within the FSSD's Suisun Basin and are served by Suisun Pump Station and three smaller lift stations: Lawler I Lift Station, Lawler II Lift Station, and Crystal Lift Station. Wastewater is conveyed from these lift stations to the Suisun Pump Station. Each of the FSSD's pump stations are equipped with Supervisory Control and Data Acquisition monitoring and controls. Each station has a backup control for pump operation and several other operational features to increase reliability and decrease the chances of pump station failure (FSSD 2019). Table 4.13-3 summarizes the pumping capacity of these pump and lift stations.

The 36-inch Suisun force main passes through the Central Pump station site where the 36-inch and 48-inch force mains are joined in a junction vault. The force mains are interchangeable in the junction vault, but the standard configuration is for Suisun pump station to use the 48-inch force main from the junction vault to the treatment plant (FSSD 2019). The Central-Suisun force main configuration provides a contingency option should one of the force mains fail or be damaged. The Suisun Pump Station flow will divert by gravity to Central Pump Station during in the event of an extended pump station outage. Central Pump Station has adequate capacity to handle dry weather flows for both Suisun and Central drainage basins. As shown on Table 4.13-3, the Suisun pump station has a firm pumping capacity of 33 million gallons per day (mgd).

Table 4.13-3. Fairfield-Suisun Sewer District Pump and Lift Stations and Existing Pumping Capacity

Pump/Lift Station[1]	Firm Pumping Capacity (mgd)
Lawler Ranch I Lift Station	0.36
Lawler Ranch II Lift Station	1.1
Crystal Lift Station	0.5
Suisun Pump Station	33

Notes: mgd = million gallons per day

[1] Pump stations discharge directly into the Fairfield-Suisun Subregional Wastewater Treatment Plan headworks while lift stations discharge to gravity sewers within drainage basins.

Source: FSSD 2019, Woodard & Curran 2020a

According to the FSSD 2020 Wastewater Collection System Master Plan Update (2020 FSSD Master Plan Update) (Woodard & Curran 2020a), the existing peak dry-weather flow to the Suisun pump station is 6.5 mgd and the anticipated future peak dry-weather dry weather flow would be 15.6 mgd. Wastewater flows generated by the proposed Project were not included in the 2020 FSSD Master Plan Update (Morton & Pitalo 2022).

The 2020 FSSD Master Plan Update performed a hydraulic analysis to evaluate system performance and capacity deficiencies. The 2020 FSSD Master Plan specified that a capacity deficiency should be identified under the following conditions:

- Any modeled surcharging under peak dry-weather flow.
- Any modeled overflow or surcharge reaching within 5 feet of ground under 10-year design storm peak wet-weather flow, or any modeled overflow under 20-year storm peak wet-weather flow.

- Pump stations were considered capacity deficient if the design storm peak wet-weather flow with the largest pumping unit out of service (i.e., firm capacity) resulted in upstream overflows or backwater surcharge reaching within 5 feet of the ground.

The 2020 FSSD Master Plan Update did not identify any pump station or infrastructure deficiencies in the vicinity of the Project Site (Woodard & Curran 2020a).

Fairfield-Suisun Subregional Wastewater Treatment Plant

Wastewater flows collected from FSSD pump stations are ultimately transported into the Fairfield-Suisun Subregional WWTP located on Chadbourne Road south of Cordelia Road in Fairfield. The Fairfield-Suisun Subregional WWTP has current design capacity of 23.7 mgd average dry-weather flow and 52.9 peak wet-weather flow. The WWTP currently treats 16.1 mgd average dry-weather flow (Woodard & Curran 2020a). In the long term, the 2020 FSSD Master Plan Update estimates that at buildout of the FSSD service area, the average daily flow could reach 23.0 mgd (Woodard & Curran 2020a). Wastewater flows generated by the proposed Project were not included in the FSSD sewer system master plan since it was developed prior to the Project being proposed, but Project demands are analyzed and reported in this document and the Project's sewer study and master plan (Morton & Pitalo 2022).

Wastewater is treated to an advanced secondary level, which is feasible for recycled water use. Most of the water is discharged into Boynton Slough, southeast of the treatment plant, with a portion of the wastewater recycled for irrigation, marsh enhancement, and in-plant uses (Woodard & Curran 2020a).

SOLID WASTE

Solano Garbage, a division of Republic Services, is the current franchise that provides weekly solid waste collection and disposal services to residents and businesses in Suisun City. Non-recyclable waste is transported to the Potrero Hills Landfill, located at 3675 Potrero Hills Lane. In 2020, the City disposed of a total of 16,236 tons of solid waste (CalRecycle 2020).

The Potrero Hills Landfill is a Class III municipal landfill that is permitted to accept general residential, commercial, and industrial refuse for disposal, including municipal solid waste, construction and demolition debris, green materials, and agricultural debris. According to CalRecycle, the Potrero Hills Landfill has a maximum permitted throughput of 4,330 tons per day (tpd) and has a total maximum permitted capacity of 83.1 million cubic yards. The Potrero Hills Landfill has a remaining capacity of approximately 13.9 million cubic yards and a closure date of February 14, 2048 (CalRecycle 2022).

The California Integrated Waste Management Board of 1989 requires local agencies to implement source reduction, recycling, and composting that would result in a minimum of 50 percent diversion of solid waste from landfills, thereby extending the life of landfills.[1] For 2020, the target solid waste generation rate for Suisun City was 32.8 pounds per day (ppd) per employee, and the actual measured generation rate was 28.8 ppd per employee, which is less than the target solid waste generation rate (CalRecycle 2020).

[1] As of 2007, the 50 percent diversion requirement is measured in terms of per-capita disposal expressed as pounds per day (ppd) per resident and per employee. The new per capita disposal and goal measurement system uses an actual disposal measurement based on population, disposal rates reported by disposal facilities, and evaluates program implementation efforts.

Electricity & Natural Gas

Three existing natural gas pipelines are present within and adjacent to the Project Site. One traverses the Project Site in a southwest to northeasterly direction, paralleling Cordelia Road and Pennsylvania Avenue. A second traverses the northwest corner of the Project Site from SR 12 and southwest toward and in alignment with Meyer Way west of the Project Site. A third parallels the Union Pacific Railroad.

Electricity and natural gas service for the proposed Project would be provided by Pacific Gas and Electric. Service laterals would be extended to Project buildings from existing facilities along Pennsylvania Avenue and Cordelia Road. On-site electrical transmission infrastructure and natural gas lines would be installed underground, between 18 and 24 inches deep.

4.13.2 REGULATORY BACKGROUND

FEDERAL PLANS, POLICIES, REGULATIONS AND LAWS

No federal plans, policies, regulation, or laws pertaining to utilities and service systems are applicable to the proposed Project.

STATE PLANS, POLICIES, REGULATIONS, AND LAWS

Senate Bill 610

The State of California has enacted legislation that is applicable to the consideration of larger projects under CEQA. SB 610 (Chapter 643, Statutes of 2001; Section 21151.9 of the Public Resources Code and Section 10910 et seq. of the Water Code) requires the preparation of "water supply assessments" for large developments (i.e., more than 500 dwelling units or nonresidential equivalent; shopping centers or business establishments employing more than 1,000 persons or having more than 500,000 square feet of floor space; commercial office buildings employing more than 1,000 persons or having more than 250,000 square feet of floor space; or industrial, manufacturing, processing plants, or industrial parks planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area). Because the Project proposes approximately 1.28 million square feet of building space, a water supply assessment is required.

These assessments, prepared by "public water systems" responsible for serving project areas, address whether existing and projected water supplies are adequate to serve the project, while also meeting existing urban and agricultural demands and the needs of other anticipated development in the service area in which the project is located. If the UWMP did not account for the project's water demand, or if the public water system has no UWMP, the project's WSA must discuss whether the system's total projected water supplies (available during normal, single-dry, and multiple-dry water years during a 20-year projection) would meet the project's water demand in addition to the system's existing and planned future uses, including agricultural and manufacturing uses.

California Integrated Waste Management Act

The California Integrated Waste Management Act of 1989 is the result of two pieces of legislation, AB 939 and SB 1322, and was intended to minimize the amount of solid waste that must be disposed of by transformation and

land disposal by requiring all cities and counties to divert 25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000.

The California Integrated Waste Management Act created the California Integrated Waste Management Board (now known as CalRecycle). CalRecycle is the agency designated to oversee, manage, and track California's 92 million tons of waste generated each year. CalRecycle provides grants and loans to help cities, counties, businesses, and organizations meet the state's waste reduction, reuse, and recycling goals. In addition to many programs and incentives, CalRecycle promotes the use of new technologies for the practice of diverting resources away from landfills. CalRecycle is responsible for ensuring that waste management programs are primarily carried out through local enforcement agencies (LEAs).

The State Water Resources Control Board and the Central Valley RWQCB also regulate waste disposal (the latter regulated solid waste prior to CalRecycle). In Solano County, the County is responsible for municipal solid waste management planning and compliance efforts required by CalRecycle.

California Green Building Standards Code

The standards included in the 2022 California Green Building Standards Code (CALGreen Code) (Title 24, Part 11 of the California Code of Regulations) became effective on January 1, 2023. The CALGreen Code was developed to enhance the design and construction of buildings, and the use of sustainable construction practices, through planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental air quality (California Building Standards Commission 2021). The most significant efficiency improvements to the residential standards in the 2022 CALGreen Code include improvements for attics, walls, water heating, and lighting and standards for residential plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) to reduce indoor demand for potable water.

Chapters 4 and 5 of the 2022 CALGreen Code requires residential and nonresidential developments to comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance, whichever is more stringent. Both chapters require all residential and nonresidential construction contractors to reduce construction waste and demolition debris by 65 percent. Code requirements include preparing a construction waste management plan that identifies the materials to be diverted from disposal by efficient usage, recycling, reuse on the project, or salvage for future use or sale; determining whether materials will be sorted on-site or mixed; and identifying diversion facilities where the materials collected will be taken. The code also specifies that the amount of materials diverted should be calculated by weight or volume, but not by both. In addition, the 2022 CALGreen Code requires that 100 percent of trees, stumps, rocks, and associated vegetation and soils resulting primarily from land clearing be reused or recycled.

Assembly Bill 341

In an effort to reduce greenhouse gas emissions from disposing of recyclables in landfills, AB 341 requires local jurisdictions to implement commercial solid waste recycling programs. Businesses that generate four cubic yards or more of solid waste per week or multifamily dwellings of five units or more must arrange for recycling services. In order to comply with AB 341, jurisdictions' commercial recycling programs must include education, outreach, and monitoring of commercial waste generators and report on the process to CalRecycle. Jurisdictions may enact mandatory commercial recycling ordinances to outline how the goals of AB 341 will be reached. For businesses to comply with AB 341, they must arrange for recyclables collection through self-haul, subscribing to

franchised haulers for collection, or subscribing to a recycling service that may include mixed waste processing that yields diversion results comparable source separation.

Assembly Bill 1826

In order to further reduce greenhouse gas emissions from disposing of organics materials in landfills, AB 1826 requires businesses to recycle their organic waste beginning on April 1, 2016, depending on the amount of solid waste they generate per week. Similar to AB 341, jurisdictions are required to implement an organic waste recycling program that includes the education, outreach and monitoring of businesses that must comply. Organic waste refers to food waste, green waste, landscaping and pruning waste, nonhazardous wood waste, and food-soiled paper that is mixed with food waste.

Regional and Local Plans, Policies, Regulations, and Ordinances

Solano County General Plan

The Solano County General Plan (Solano County 2008) does not contain any policies related to utilities and service systems that are applicable to the proposed Project, because Project-related activities would be limited to the construction and monitoring of mitigation wetlands within the Managed Open Space area, which would remain in the unincorporated county.

City of Suisun City Municipal Code

Title 8, Chapter 8.08 (Solid Wastes)

City Municipal Code Title 8, Chapter 8.08 provides waste collection requirements for all developments in the City. The guidelines provide information for designing trash sites that will be used by building occupants in new developments. Property owners are required to have available and utilize receptacles of an adequate size and in sufficient numbers to contain without overflowing, all the solid wastes generated within the designated removal period.

Title 8, Chapter 8.10 (Recyclable Materials)

City Municipal Code Title 8, Chapter 8.10 provides recycling requirements for all developments in the City. The guidelines provide information for designing recycling sites that will be used by building occupants in new developments.

Title 20, Chapter 20.04 (Water Efficient Landscape Requirements)

The Water Efficient Landscape Requirements (City Municipal Code Title 20, Chapter 20.04) outlines provisions for water management practices and water waste prevention for existing landscapes. It also specifies the requirements for planning, designing, installing, maintaining, and managing water-efficient landscapes in new construction and rehabilitated projects. Recycled water systems for irrigation are allowed, provided they comply with code requirements.

City of Suisun City General Plan

The Suisun City General Plan (City of Suisun City 2015) includes the following policies related utilities that apply to the proposed Project.

Community Facilities and Services

- **Policy CFS-6.1:** New developments will be required to demonstrate the availability of adequate water supply and infrastructure, including during multiple dry years and adequate fire flow pressure, prior to approval.
- **Policy CFS-6.4:** New developments shall include water conservation technologies, such as low-flow toilets, efficient clothes washers, and efficient water-using industrial equipment, in accordance with State law.
- **Policy CFS-7.2:** New developments will be required to contribute on a fair-share basis toward implementation of system improvements, as determined by the City Engineer.
- **Policy CFS-7.3:** The City will encourage the use of recycled water for outdoor irrigation, toilet flushing, fire hydrants; commercial and industrial processes, carwashes, concrete batching, laundromats; dust control; parks and other landscaped areas, and other appropriate water-intensive uses. New developments that include recycled water systems should enjoy proportionally lower development impact fees.
- **Policy CFS-9.2:** New developments will be required to demonstrate adequate capacity to accommodate solid waste demand, including processing, recycling, transportation, and disposal.
- **Policy CFS-9.5:** New developments and significantly remodeled existing uses will be required to incorporate convenient exterior storage areas for solid waste, recyclables, and green waste.

4.13.3 Environmental Impacts and Mitigation measures

Methodology

Impacts are evaluated in relation to increased demand for utilities and services associated with the proposed Project and actions needed to provide the infrastructure that could potentially lead to physical environmental effects. Section 4.6 of this EIR, "Greenhouse Gas Emissions and Energy," addresses energy resources and demand.

The Managed Open Space area would not result in an increased demand for water supplies or wastewater treatment or generate solid waste. Impacts related to utilities and service systems attributable to the 93-acre Development Area were identified by comparing existing service capacity and facilities against future demand associated with proposed Project implementation and identifying reasonably foreseeable service and facilities expansion required to serve the proposed Project. When possible, a quantitative comparison was used to determine future demand.

Evaluation of potential utilities and service systems impacts was based on a review of the engineering information and the following planning documents:

- *City of Suisun City General Plan* (City of Suisun City 2015),
- *Suisun-Solano Water Authority Urban Water Management Plan* (Maddaus Water Management 2016),

- *Water Supply Assessment – Logistics and Highway 12 Logistics Center Projects* (KSN 2022),
- *Fairfield-Suisun Sewer District Wastewater Collection System Master Plan Update* (Woodard & Curran 2020a),
- *Fairfield-Suisun Sewer District Sewer System Management* Plan (FSSD 2019),
- *City of Suisun City Sewer System Management Plan* (City of Suisun City 2014), and
- *Sewer Master Plan for Highway 12 Logistics Center (Suisun Gentry)* (Morton & Pitalo 2022).

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the CEQA Guidelines, the proposed Project would have a significant impact related to utilities and service systems if it would:

- require or result in the relocation or construction of new or expanded water, wastewater treatment facilities, or storm water drainage, electrical power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects;
- not have sufficient 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 does not have adequate 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; or
- not comply with federal, State, or local management and reduction statutes and regulations related to solid waste.

IMPACT ANALYSIS

Impact 4.13-1: Require or Result in the Relocation of or the Construction of New or Expanded Utilities and Service Systems Facilities, the Construction of Which Could Cause Significant Environmental Effects. *The 93-acre Development Area would require the construction of electrical, natural gas, water, and wastewater facilities. Environmental impacts related to constructing or expanding utility infrastructure, including water, sewer, electrical, and natural gas infrastructure to serve the 93-acre Development Area are analyzed throughout the various environmental topic specific sections of this EIR in conjunction with overall development in the Project Site. There is no additional significant impact related to construction of new or expanded utilities and service systems within the Development Area beyond what is comprehensively analyzed throughout this EIR. Therefore, this impact would be* ***less than significant****.*

The 93-acre Development Area would require the construction of new or expanded electrical, natural gas, water, and wastewater facilities. The following discussion identifies future on-site and off-site utilities and service systems required to serve the proposed Development Area and the potential for construction of new or expanded systems to cause significant environmental effects. Impacts related to stormwater management facilities are addressed in Section 4.8, "Hydrology and Water Quality." The off-site SR 12 roadway improvements and Managed Open Space area do not include new or expanded utilities and service systems.

Electrical and Natural Gas

Electricity and natural gas service for the Project Site would be provided by Pacific Gas and Electric Company. Service laterals would be extended to Project buildings from existing facilities along Pennsylvania Avenue and Cordelia Road. On-site electrical transmission infrastructure and natural gas lines would be installed underground and would generally follow the alignment of the internal roadway network.

Water System Facilities

The proposed Project would receive domestic water service through connection to an existing 12-inch water main in Cordelia Street, approximately 2,800 feet east of the intersection of Cordelia Street and Pennsylvania Avenue. The new public 12-inch water line would then be extended north along Pennsylvania Avenue to serve the proposed Development Area (Exhibit 3-9).

The City requires new developments to demonstrate the availability of adequate infrastructure prior to project approval (Policies CFS-1.1 and CFS-6.1 of the City General Plan). The City is implementing this policy through the review of the proposed Project, including this EIR – the applicant has been required to, and has provided infrastructure master plans showing required infrastructure necessary to support the proposed Project and is required to construct this infrastructure or contribute on a pro-rata basis to the construction of this infrastructure. In addition, infrastructure improvements would be installed concurrent with construction of roadways, wherever feasible (Policy CFS-1.5 of the City General Plan).

Wastewater Collection and Conveyance Facilities

The proposed wastewater system includes the on-site private sewer pipe system, one on-site private pump station, and an off-site public combination force main and gravity line in Cordelia Road. The proposed on-site sewer system serving Planning Areas 1 and 2 would be designed using a gravity-fed system. The general pattern of sewer discharge will be from north to south. The sewer service from Planning Area 3 will be brought cross Pennsylvania Avenue and combine with the Planning Area 1 sewer system via gravity line. The combined Planning Area 1 and 3 on-site sewer mains will then cross under the Union Pacific Railroad tracks and right-of-way and combine with the Planning Area 3 on-site sewer line until it reaches Cordelia Road at the southwest corner of Planning Area 2 frontage. At this location, an on-site private sewer lift station will be constructed to pump sewer flows via an off-site force main and gravity sewer line along Cordelia Road to the intersection with Beck Avenue, approximately 2,700 feet west, at which location the wastewater line will tie into the FSSD facilities at an existing sanitary sewer manhole and 15-inch sewer main owned and operated by the FSSD (see Exhibit 3-9 in Chapter 3). A force main would be attached to the side of the existing Ledgewood Creek bridge in order to convey sewer flows from the Project pump station to the west side of Ledgewood Creek.

Because the Project Site is not within the City limits, wastewater flows generated by the proposed Project were not included in the 2020 FSSD Master Plan Update (Morton & Pitalo 2022). In December 2020, a technical memorandum for the proposed Project was prepared by Woodard & Curran to assess the sewer impacts on the existing FSSD system and whether the Project would cause system deficiencies. Based on the results of the modeling, the proposed Project would not trigger any new capacity deficiencies and would not exacerbate any existing capacity deficiencies (Woodard & Curran 2020b).

The City requires new developments to demonstrate the availability of infrastructure (Policy CFS-1.1 of the City General Plan) and contribute its fair share portion for funding new infrastructure facilities (Policy CFS-7.2 of the City General Plan). The City is implementing this policy through the review of the proposed Project, including this EIR – the applicant has been required to, and has provided infrastructure master plans showing required infrastructure necessary to support the proposed Project and is required to construct this infrastructure or contribute on a pro-rata basis to the construction of this infrastructure. In addition, design and construction of sewer pipelines 10 inches or less in diameter would be required to meet the design standards identified in the City's Sewer System Management Plan (City of Suisun City 2014).

Conclusion

Environmental impacts related to constructing or expanding utility infrastructure, including water, sewer, electrical, and natural gas infrastructure, to serve the 93-acre Development Area are analyzed throughout the various environmental topic specific sections of this EIR in conjunction with overall development in the Project Site. The placement of these utilities has been considered in the other sections of this EIR, such as Section 4.2, "Air Quality," Section 4.3, "Biological Resources," Section 4.4, "Cultural Resources," Section 4.8, "Hydrology and Water Quality," and other sections that specifically analyze the potential impacts from the development of the Project Site. Where necessary, these sections include mitigation measures that would reduce or avoid the impacts of developing infrastructure on the physical environment. There is no additional significant impact related to construction of new or expanded utilities and service systems within the Development Area beyond what is comprehensively analyzed throughout this EIR. Therefore, this impact would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact 4.13-2: Increased Demand for Water Supplies. *The 93-acre Development Area would increase demand for SSWA water supplies. With implementation of the Second Amendment to the Suisun/Solano Implementation Agreement and Lease Agreement and annexation of the Project Site, the Project WSA concluded water supply is projected to be sufficient to meet demands of the proposed Project and existing and planned development in SSWA's service area in normal, single-dry, and multiple-dry years. Therefore, this impact would be* ***less than significant****.*

The proposed Managed Open Space area would not require water supplies. Water supply for the 93-acre Development Area would be provided by SSWA. The City outlines specific requirements to ensure water supplies are available to meet demands created by new development. These requirements include demonstrating water supplies are available to accommodate new development, including during multiple-dry years and adequate fire flow pressure, prior to approval (Policy CFS-6.1 of the City General Plan). The City has required a Water Supply Assessment (WSA) for this Project to implement the General Plan policy related to short- and long-term water supply, and SSWA has published Design Standards, Standard Specifications, and Standard Details that include fire flow requirements. In addition, the City requires new developments to include water conservation technologies and efficient water-using industrial equipment, in accordance with State law (Policy CFS-6.4 of the City General Plan). The sources of SSWA's water supplies, along with projected supply and demand within the SSWA service area boundary (which currently does not include the Project Site) through the year 2045 are presented in SSWA's UWMP and are shown in Tables 4.13-1 and 4.13-2, above. As shown therein, SSWA determined that it would have sufficient water supplies to meet demand in all water year types through the year 2045, within its service area boundary. However, SID, which supplies water to SSWA, was not able to confirm

that it would have surplus water available to meet the demand from new development on land outside its service area boundaries.[2]

Therefore, SID commissioned a WSA for the proposed Project which is provided in Appendix F of this Draft EIR. The WSA estimated that the water demand for the 93-acre Development Area would be 105 afy (KSN 2022).[3] The current available water supplies, with expectation of increased SID irrigation demands, together with the severe multiple year (2012–2016) drought, and uncertainty regarding reliability of State Water Project North Bay Aqueduct water supplies during severe droughts, highlighted the need to further evaluate SSWA water supply options (KSN 2022). The Second Amendment to the Implementation/Lease Agreement between the City of Suisun City and Solano Irrigation District, effective August 16, 2022, provides for a path forward to implement a point of transfer for the State Water Project water transfer. In addition, one SSWA regulatory requirement for water service, as outlined in the Second Amendment to the Implementation Agreement, is that "new land is to be "…annexed into the Joint Service Area before water can be made available." Therefore, the WSA concluded that with implementation of the Second Amendment to the Suisun/Solano Implementation Agreement and Lease Agreement and annexation of the Project Site into the SSWA service area, SSWA's water supply would be sufficient to meet the demands of the proposed Project and existing and planned development in SSWA's service area in normal, single-dry, and multiple-dry years (KSN 2022). Therefore, this impact would be **less than significant**.

Impact 4.13-3: Increased Demand for Wastewater Treatment Facilities. *Wastewater generated by the proposed Project would be conveyed off site to Fairfield-Suisun Subregional WWTP for treatment. The proposed Project-related wastewater flows (0.128 mgd) would not result in an increase in wastewater flows that exceed the current disposal capacity of 23.7 mgd average dry-weather flow. Therefore, the Fairfield-Suisun Subregional WWTP would have adequate capacity to serve the Project's estimated demand, in addition to its existing commitments. This impact would be* ***less than significant.***

The proposed Managed Open Space area would not include activities that would generate wastewater. Buildout of the 93-acre Development Area would result in new land uses that would generate additional wastewater that increases demand for wastewater treatment at the Fairfield-Suisun Subregional WWTP. The 2020 FSSD Master Plan (Woodard & Curran 2020a) estimates a base wastewater flow unit flow factor for industrial uses of 0.1 gallon per day per square foot. Based on approximately 1.28 million square feet of building area, the proposed Project would generate an estimated 128,000 gpd, or 0.128 mgd, of average dry-weather flow. The 2020 FSSD Master Plan did not include any wastewater flows from the proposed Project because the Project Site is outside of the city limits. As stated above, a technical memorandum for the proposed Project was to assess the sewer impacts on the existing FSSD system. The technical memorandum noted that the type of uses may generate somewhat lower flows than typical industrial uses assumed in the 2020 FSSD Master Plan; the unit flow factor should therefore be considered a conservative estimate of potential wastewater generation (Woodard & Curran 2020b).

Wastewater generated by the proposed Project would be conveyed off site to Fairfield-Suisun Subregional WWTP for treatment. The Fairfield-Suisun Subregional WWTP has a maximum average dry-weather design

[2] SID engaged a consultant reevaluate its water supply and water demands in 2015 (see Appendix C in the WSA). The analysis demonstrated that SID's agricultural and urban water demand would exceed its Solano Project entitlement with shortages ranging from 7,000 afy to 27,000 afy. It was also noted that SID has future water supply contract commitments to urban areas in Solano County scheduled to increase from 18,976 afy to 34,929 afy in 2024 (KSN 2022).

[3] This water supply demand does not reflect 2022 CALGreen Code (Title 24, Part 11 of the California Code of Regulations) requirements to reduce indoor demand for potable water by 20 percent and to reduce landscape water usage by 50 percent or water conservation measures that may be implemented by future development.

treatment capacity of 23.7 mgd and the current average dry weather flow is approximately 16.1 mgd (Woodard & Curran 2020a). The proposed Project-related wastewater flows (0.128 mgd) would not result in an increase in wastewater flows that exceed the current disposal capacity of 23.7 mgd average dry-weather flow. Therefore, the Fairfield-Suisun Subregional WWTP would have adequate capacity to serve the Project's estimated demand, in addition to its existing commitments. This impact would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact 4.13-4: Increased Generation of Solid Waste in Excess of Capacity and Compliance with Solid Waste Statutes and Regulations. *The proposed Project would be required to comply with all federal, State, and local solid waste statues and regulations. The Potrero Hills Landfill has sufficient landfill capacity available to accommodate solid-waste disposal needs of the proposed Project. Therefore, 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 reductions goals or other federal, state, and local management and reduction status and regulations. This impact would be* ***less than significant.***

The proposed wetland construction within the Managed Open Space area would not generate and construction and demolition debris; all excavated materials are proposed to be reused on-site. In addition, the proposed Managed Open Space area would not include operational activities that would generate solid waste. Construction of the proposed Development Area and off-site SR 12 improvements would result in site clearing and the generation of various construction-period wastes, including scrap lumber, scrap finishing materials, various scrap metals, and other recyclable and nonrecyclable construction-related wastes. The CALGreen Code (Title 24, Part 11 of the California Code of Regulations) requires all construction contractors to reduce construction waste and demolition debris by 65 percent. Code requirements include preparing a construction waste management plan that identifies the materials to be diverted from disposal by efficient usage, recycling, reuse on the project, or salvage for future use or sale; determining whether materials will be sorted on-site or mixed; and identifying diversion facilities where the materials collected will be taken. The Code also specifies that the amount of materials diverted should be calculated by weight or volume, but not by both (California Building Standards Commission 2022). In addition, the CALGreen Code requires that 100 percent of trees, stumps, rocks, and associated vegetation and soils resulting primarily from land clearing be reused or recycled.

In addition, the City requires all new construction to comply with its Construction and Demolition Debris Recycling Program (City of Suisun City 2022b). Materials required to be recycled include scrap metal, inert materials (concrete, asphalt paving, bricks, etc.), corrugated cardboard, wooden pallets, and clean wood waste. A Waste Management Plan must be completed before issuance of building permits to identify waste that would be generated by a project, estimated tonnage of waste that would be recycled, as well as the proposed recycling and hauling methods (City of Suisun City 2022b). During construction, a waste log must be maintained at the Project site and submitted to the City at Project completion documenting the actual diversion tonnage.

The City provides recycling programs, such as curbside recycling of paper, plastics, and bottles, to reduce the volume of solid waste transported to landfills. City General Plan Policy CFS-9.2 requires new developments to demonstrate adequate capacity to accommodate solid waste demand, including processing, recycling, transportation, and disposal and City General Plan Policy CFS-9.5 requires new development to incorporate convenient exterior storage areas for solid waste, recyclables, and green waste. The City has implemented the requirement to demonstrate capacity through this EIR and the City implements policy related to solid waste through Chapter 8.08 of the Municipal Code, Solid Wastes.

After construction, the off-site SR 12 improvement areas would not generate solid waste. The proposed Project would have approximately 1,275 employees on a daily basis (Economic & Planning Systems 2021). CalRecycle estimated Suisun City had a 2020 solid-waste disposal generation rate of 28.8 ppd per employee (CalRecycle 2020). Based on this generation rate, the proposed Project could generate 18.4 additional tons of solid waste per day (above existing conditions).[4] This estimate is conservative (high) because recycling and waste diversion reduces this amount and is likely to increasingly reduce the waste stream that is sent to landfills in the future as more restrictive regulations require diversion of larger fractions of the waste stream.

Solid waste in Suisun City is transported by Solano Garbage and disposed of at the Potrero Hills Landfill. According to CalRecycle, the Potrero Hills Landfill has a maximum permitted throughput of 4,330 tpd and has a total maximum permitted capacity of 83.1 million cubic yards (CalRecycle 2022). The Potrero Hills Landfill has a remaining capacity of approximately 13.9 million cubic yards and an anticipated closure date of February 14, 2048 (CalRecycle 2022). Therefore, the Potrero Hills Landfill has sufficient existing remaining capacity to accept the anticipated increase in solid waste generated by the proposed Project (18.4 tpd).

The proposed Project would be required to comply with all federal, State, and local solid waste statues and regulations, including compliance with the CALGreen Code, the City's the Construction and Demolition Debris Recycling Program, Sections 8.08 (Solid Wastes) and 8.10 (Recyclable Materials) of the Suisun City Municipal Code, AB 341 (commercial recycling programs), AB 1826 (mandatory commercial organics recycling), and other City recycling programs. Implementation of these codes and programs would reduce the volume of solid waste disposed of at the Potrero Hills Landfill and ensure sufficient landfill capacity would be available to accommodate solid-waste disposal needs for the proposed Project. Therefore, 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 reductions goals or other federal, State, and local management and reduction status and regulations. Therefore, impacts related to increased generation of solid waste would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

[4] Based on CalRecycle's estimated 2020 annual per capita disposal rate of 28.8 pounds per employee per day and an estimated 1,275 employees, approximately 36,720 pound per day of solid waste would be generated per day, which equates to 18.4 tpd (CalRecycle 2020).