3.13 - Utilities and Service Systems

3.13.1 - Introduction

This section describes the existing public services and utilities and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on information provided by the Suisun City General Plan, Suisun City Municipal Service Review, the Water Supply Assessment (WSA) prepared by KSN on behalf of the Suisun-Solano Water Authority, and the Fairfield-Suisun Sewer District 2016 Limited Update of Sewer Master Plan prepared by GEI Consultants, Inc. Supporting information is provided in Appendix M.

3.13.2 - Environmental Setting

Water

Suisun-Solano Water Authority (SSWA) provides potable water to customers within the Suisun City limits and unincorporated Solano County. SSWA is a joint powers authority between the City of Suisun City and the Solano Irrigation District (SID).

Water Supply

Both the City of Suisun City and SID have contracts with the Solano County Water Agency (SCWA) for water supplies from the federal Solano Project. SCWA is the contracting agency with the United States Bureau of Reclamation (USBR) for water supplies from the Solano Project. SCWA sells Solano Project water to SSWA. SSWA has a water treatment facility that receives surface water from the Solano Project. The City of Suisun City also has an annual entitlement of 1,500 acre-feet from the State Water Project's North Bay Aqueduct. In August 2022, the City of Suisun City and SID entered into a second amended implementation/lease agreement that allows the City to transfer its State Water Project entitlement to SID in exchange for additional Solano Project water deliveries to SSWA. A copy of this agreement is included in Appendix M. Table 3.13-1 summarizes SSWA's annual entitlements. The City of Suisun City is unable to directly utilize its State Water Project entitlement because of a lack of connection to the SSWA treatment plant.

Table 3.13-1: Suisun-Solano Water Authority Annual Water Entitlements

Solano Project				
Agency	Annual Entitlement (acre-feet)			
Suisun City	1,600			
Solano Irrigation District (Ag and M&I)	141,000			
State Water Project				
Agency/Year	Annual Entitlement (acre-feet)[1]			
	2010	2015	2020	2025
Suisun City	1,050	1,300	1,300	1,300

Notes:
[1] In 2015 Suisun City reached its maximum Table A Entitlement.
Source: KSN. 2022.

Table 3.13-2 summarizes the quantity of water received by SSWA under the existing supply entitlements between 2000 and 2020.

Table 3.13-2: Historic Cement Hill Water Treatment Plant Production and Delivery Summary of Solan Project Water Supplies to SSWA

Year	Total Annual Plant Production (million gallons)	Daily Average Projection (million gallons)	Annual Delivery (acre-feet)	Suisun City[1] (acre-feet)	SID-Suisun[2] (acre-feet)
2000	1,421.99	3.90	4,364	1,600	2,764
2001	1,467.08	4.02	4,503	1,600	2,903
2002	1,549.48	4.25	4,756	1,600	3,156
2003	1,555.60	4.26	4,774	1,600	3,174
2004	1,636.76	4.48	5,023	1,600	3,423
2005	1,642.54	4.50	5,041	1,600	3,441
2006	1,520.30	4.17	4,666	1,600	3,066
2007	1,537.80	4.21	4,720	1,600	3,120
2008	1,540.22	4.22	4,727	1,600	3,127
2009	1,441.89	3.95	4,425	1,600	2,825
2010	1,340.60	3.67	4,114	1,600	2,514
2011	1,300.80	3.56	3,992	1,600	2,392
2012	1,317.90	3.61	4,045	1,600	2,445
2013	1,395.40	3.82	4,283	1,600	2,683
2014	1,205.70	3.30	3,700	1,600	2,100
2015	1,058.40	2.90	3,248	1,600	1,648
2016	1,020.80	2.80	3,133	1,600	1,533
2017	1,084.97	2.97	3,330	1,600	1,730
2018	1,097.93	3.01	3,369	1,600	1,769
2019	1,113.27	3.05	3,417	1,600	1,817
2020	1,173.51	3.22	3,601	1,600	2,001

Notes:
SID = Solano Irrigation District
SSWA = Suisun-Solano Water Authority
[1] Represents the water supplies delivered to SSWA by Suisun City under their Solano Project entitlement.
[2] Represents the water supplies delivered to SSWA.
Source: KSN. 2022.

Projected Demand and Supply

Table 3.13-3 summarizes past and projected population growth for the City of Suisun City. As shown in the table, the City is expected to add more than 3,700 people to its population between 2020 and 2045.

Table 3.13-3: Existing and Projected Population Growth within Suisun City

Year	Population	Estimated Households
2010	28,111[1]	8,924[2]
2015	29,492[3]	8,991[3]
2020	29,518[4]	9,293[4]
2025	30,447[5]	9,635[5]
2030	31,151[5]	9,858[5]
2035	31,854[5]	10,080[5]
2040	32,558[5]	10,303[5]
2045	33,261[5]	10,526[5]
Estimated Ultimate Buildout	34,052	10,931

Notes:
[1] 2010 U.S. Census Data, Suisun City.
[2] Calculated from persons per household rate (2010 Census) of 3.15.
[3] 2015 U.S. Census Data with estimated person per household rate of 3.28.
[4] 2020 U.S. Census Data with estimated person per household rate of 3.16 (2016-2020).
[5] Assumes linear population growth and estimated No. of households from 2020-2045.
Source: KSN. 2022.

The annual water supplies necessary to meet the 2045 demand are estimated to be 4,685 acre-feet. This represents an increase of 1,084 acre-feet above the 2020 demand value shown in Table 3.13-2.

Wastewater

Suisun City and Fairfield-Suisun Sewer District (FSSD) jointly operate and maintain the wastewater collection system in Suisun City limits. FSSD operates a regional treatment plant at 1010 Chadbourne Road that treats effluent.

Sewer Collection System

FSSD owns and operates the approximately 70-mile trunk sewer system, which includes all 12-inch and larger sewers and the 12 pump stations and force mains that convey wastewater to the wastewater treatment plant. Suisun City owns and maintains all sewers 10 inches in diameter or smaller. Wastewater flows by gravity or is pumped by smaller stations to four major pump stations that pump wastewater to the treatment plant. Suisun City is served by Suisun Pump Station and three smaller stations: Lawler I Pump Station, Lawler II Pump Station, and Crystal Street Pump Station. Capacity at the Suisun Pump Station is 38.3 million gallons per day (mgd). Typical dry weather flow is 8.1 mgd and wet weather flow is 27 mgd.

The existing FSSD trunk sewer system in the project vicinity consists of a 27-inch-diameter line within Petersen Road between Travis Air Force Base and Walters Road and a 39-inch-diameter line downstream of Walters Road that conveys effluent to the Chadbourne Road Treatment Plant

Treatment Plant

The Chadbourne Road Treatment Plant serves urban areas in central Solano County, including the cities of Fairfield and Suisun City, and Travis Air Force Base. The treatment plant's sewershed is 48 square miles, with a population of more than 135,000. The treatment plant's design capacity is 23.7 mgd and treats 10-15 mgd on a typical day.

The treatment plant provides secondary treatment and discharges treated effluent to Boynton Slough, which is part of Suisun Marsh. The wastewater treatment processes include screening, primary treatment, intermediate treatment by oxidation towers and intermediate clarifiers, secondary treatment with aeration basins, and secondary clarifiers and tertiary treatment via filtration and disinfection. Waste solids are thickened and treated in anaerobic digesters then solids are further concentrated before being disposed at the Potrero Hills Landfill. Approximately 10 percent of treated effluent is recycled for landscape irrigation. All treated effluent is 100 percent compliant with National Pollutant Discharge Elimination System (NPDES) Permit provisions.

Storm Drainage

Suisun City Public Works Department oversees stormwater management within the Suisun City limits. The municipal storm drainage system consists of channels, inlets, underground piping, and basins. Runoff from Suisun City drains to Suisun Marsh.

Project Site Storm Drainage Facilities

Two man-made drainage channels traverse the project site in a north-to-south direction. The drainage channels travel under State Route (SR) 12 in culverts and discharge directly into Suisun Marsh. Aside from these channels, there are no other storm drainage facilities on-site (e.g., inlets, piping, basins, etc.).

Solid Waste

Solano Garbage, a division of Republic Services, provides solid waste and recycling collection, transport, and disposal services under a franchise agreement to commercial, residential, and public sector customers within Suisun City.

Landfill

The Potrero Hills Landfill, located approximately 1 mile south of the project site, is a regional facility that serves Suisun City and numerous other jurisdictions within a 150-mile radius. In 2005, the County of Solano approved a 260-acre expansion that increased capacity to 83.1 million cubic yards. In 2010, the San Francisco Bay Conservation and Development Commission issued a permit allowing the expansion to proceed. Litigation ensued and all appeals were exhausted in 2014; thus, the expansion was cleared to move forward. Table 3.13-4 summarizes the Potrero Hills Landfill characteristics, including those associated with the approved expansion.

Table 3.13-4: Potrero Hills Landfill Summary

Permitted Area	Permitted Daily Throughput	Permitted Disposal Capacity	Remaining Capacity	Permitted Hours of Operation	Permitted Traffic Volume	Estimated Closure Date
525.7 acres (total)	3,400 tons (7-day average)	83.1 million cubic yards	38.8 million cubic yards	Monday–Friday: 24 hours a day	500 inbound daily vehicles (7-day average)	2048
340.0 acres (disposal)	4,330 tons (single day peak)			Saturday-Sunday: 4:00 a.m. to 12:00 a.m.	1,000 inbound daily vehicles (single day peak)	

Notes:
Data obtained from Solid Waste Facility Permit No. 48-AA-0075.
Source: California Department of Resources Recycling and Recovery (CalRecycle). 2012.

3.13.3 - Regulatory Framework

Federal

National Pollutant Discharge Elimination System

Pursuant to Section 402 of the CWA and the Porter-Cologne Water Quality Control Act, municipal stormwater discharges in Suisun City are regulated under the San Francisco Bay Region Municipal Regional Stormwater NPDES Permit, MS4 Order No. 2013-001 (General Permit). In 1987, Congress amended the Clean Water Act to mandate controls on discharges from municipal separate storm sewer systems (MS4s). Acting under the federal mandate and the California Water Code, California Regional Water Quality Control Boards require cities, towns, and counties to regulate activities that can result in pollutants entering their storm drains. All municipalities prohibit non-stormwater discharges to storm drains and require residents and businesses to use Best Management Practices (BMPs) to minimize the number of pollutants in runoff. The Municipal Regional Permit is overseen by the San Francisco Bay Regional Water Quality Control Board (RWQCB). On February 5, 2013, the California State Water Resources Control Board (State Water Board) reissued the Phase II Stormwater NPDES Permit for small MS4s. Provision E.12, "Post-Construction Stormwater Management Program," mandates municipalities to require specified features and facilities—to control pollutant sources, control runoff volumes, rates, and durations, and to treat runoff before discharge from the site—be included in development plans of projects that create or replace 5,000 square feet or more impervious surface as conditions of issuing approvals and permits. The new requirements continue a progression of increasingly stringent requirements since 1989.

Provision E.12 requires all municipal permittees to implement these requirements by June 30, 2015, to the extent allowed by applicable law. This includes projects requiring discretionary approvals that have not been deemed complete for processing and discretionary permit projects without vesting tentative maps that have not requested and received an extension of previously granted approvals.

In July of 2014, the Bay Area Stormwater Management Agencies Association (BASMAA), through the BASMAA Phase II Committee, created the BASMAA Manual to assist applicants for development approvals to prepare submittals that demonstrate their project complies with the NPDES permit

requirements. Applicants who seek development approvals for applicable projects should follow the manual when preparing their submittals. The manual is designed to ensure compliance with the requirements and promote integrated Low Impact Development (LID) design.

Section E.12.c of the General Permit pertains to LID and how it relates to hydromodification management. This Permit provision requires that stormwater discharges not cause an increase in the erosion potential of the receiving stream over the existing condition. Increases in runoff flow and volume must be managed so that the post-project runoff does not exceed estimated pre-project rates and durations, where such increased flow and/or volume is likely to cause increased potential for erosion of creek beds and banks, silt pollutant generation, or other adverse impacts on beneficial uses due to increased erosive force.

State

California Urban Water Management Planning Act

The Urban Water Management Planning Act (California Water Code Sections 10610–10656) requires that all urban water suppliers prepare Urban Water Management Plans (UWMPs) and update them every 5 years. In preparing an UWMP, an urban water supplier must describe or identify the following, among other things (as set forth in Water Code Section 10631):

- "The service area of the supplier, including current and projected population, climate, and other demographic factors affecting the supplier's water management planning."
- "Projected population estimates" based on "data from the State, regional, or local service agency population projections within the service area," in "five-year increments to 20 years or as far as data is available."
- "Past and current water use" and "projected water use."
- "Existing and planned sources of water" for each 5-year increment of the 20-year planning period.
- Specific detailed information about groundwater where it is identified as "an existing or planned source of water available to the supplier."
- "All water supply projects and water supply programs" that may be undertaken to meet "total projected water use," including "specific projects" and the "increase in water supply" expected from each project.
- An estimate of "the implementation timeline for each project or program."
- "Plans to supplement or replace" any "water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors" with "alternative sources or water demand management measures, to the extent practicable."
- "The reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable," for (i) an "average water year," (ii) a "single dry water year," and (iii) "[m]ultiple dry water years."
- "Opportunities for exchanges or transfers of water on a short-term or long-term basis."

- "Opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply."
- "Water demand management measures."

Senate Bill 610: Water Supply Assessments

As revised by Senate Bill (SB) 610 (Stats. 2002, ch. 643), sections 10910 *et seq.* of the California Water Code set forth the circumstances in which California Environmental Quality Act (CEQA) lead agencies must seek preparation of, or prepare themselves, "water supply assessments" for defined proposed "projects." At the time a lead agency determines that a proposed project requires an Environmental Impact Report (EIR), the lead agency shall identify any "public water system" that would serve the project site and shall request that any such entity prepare a WSA for the project. In the absence of such a public water system, the city or county lead agency must prepare its own WSA. Senate Bill 610 functions together with CEQA, in that a WSA must be included in "any environmental document" for any "project" subject to Senate Bill 610. (Water Code § 10911(b); see also State CEQA Guidelines Section 15155(e); see also *Id*., Section 15361 [defines "environmental documents" to include "Negative Declarations. . . [and] draft and final EIRs"]).

One of the fundamental tasks of a WSA is to determine whether "total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to the public water system's existing and planned future uses, including agricultural and manufacturing uses." (Water Code § 10910 (c)(3), (c)(4)). In making such a determination, the authors of the WSA must address several factors. Specifically, the WSA must contain information regarding existing water supplies, projected water demand, and dry year supply and demand. In *Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 433 ("*Vineyard*"), the California Supreme Court briefly summarized the key content requirements as follows:

> With regard to *existing* supply entitlements and rights, a water supply assessment must include assurances such as written contracts, capital outlay programs and regulatory approvals for facilities construction . . . but as to additional *future* supplies needed to serve the project, the assessment need include only the public water system's plans for acquiring the additional supplies, including cost and time estimates and regulatory approvals the system anticipates needing. (Water Code §§ 10910, subd. (d)(2), 10911, subd. (a)).
> (Original italics.)

"Existing" water supplies can be based on different kinds of legal rights or arrangements, including entitlements, water rights, and water service contracts. In many cases, these supplies are likely already described in detail in the supplier's UWMP (Water Code § 10631(b)). Suppliers are expressly permitted to rely on information contained in the most recently adopted UWMPs, so long as the water needed for proposed development project was accounted for therein (Water Code § 10910(c)(2)).

In preparing a WSA, the public water system must disclose and document the quantity of water received from these various sources. Such supplies must be demonstrated by providing the following:

(A) Written contracts or other proof of entitlement to an identified water supply.

(B) Copies of a capital outlay program for financing the delivery of a water supply that has been adopted by the public water system.

(C) Federal, State, and local permits for construction of necessary infrastructure associated with delivering the water supply.

(D) Any necessary regulatory approvals that are required in order to be able to convey or deliver the water supply.

(*Id*., subd. (d)(2).)

A finding of insufficiency in a WSA does not require a city or county to deny or downsize a proposed development project. Rather, after identifying a shortfall, the public water system must provide its plans for acquiring "additional supplies" (or what the California Supreme Court called "future" supplies) (Water Code § 10911(a)). These plans should include information concerning the following:

(1) The estimated total costs, and the proposed method of financing the costs, associated with acquiring the additional water supplies.

(2) All federal, State, and local permits, approvals, or entitlements that are anticipated to be required in order to acquire and develop the additional water supplies.

(3) Based on the considerations set forth in paragraphs (1) and (2), the estimated timeframes within which the public water system, or the city and county. . . expects to be able to acquire additional water supplies.

These particular Water Code requirements for assessments are action-forcing, in that they require the public water system to lay out a roadmap for obtaining new water supplies once it becomes aware that existing supplies are insufficient for the proposed project together with other foreseeable planned growth.

Regardless of the information provided to a city or county in a WSA, Senate Bill (SB) 610 stops short of preventing cities and counties from approving the "projects" at issue absent "sufficient" water supplies. But where "existing water supply entitlements, water rights, or water service contracts" are "insufficient" to serve proposed projects, SB 610 does require that, in approving projects in the face of insufficient supplies, cities and counties must "include" in their "findings for the project[s]" their "determination[s]" regarding water supply insufficiency. Senate Bill 610 functions together with CEQA, in that a WSA must be included in "any environmental document" for any "project" subject to SB 610. (*Id*., subd. (b); Guidelines § 15155, subd. (e); see also *Id*., § 15361 [defines "environmental documents" to include "Negative Declarations. . . [and] draft and final EIRs"]).

Recycled Water Policy

On February 3, 2009, by Resolution No. 2009-0011, the California State Water Resources Control Board (State Water Board) adopted a Recycled Water Policy in an effort to move toward a sustainable water future. In the Recycled Water Policy states "we declare our independence from relying on the vagaries of annual precipitation and move toward sustainable management of surface waters and groundwater, together with enhanced water conservation, water reuse and the use of stormwater."

The following goals were included in the Recycled Water Policy:

- Increase use of recycled water over 2002 levels by at least one million acre-feet per year by 2020 and at least two million acre-feet per year by 2030.
- Increase the use of stormwater over use in 2007 by at least 500,000 acre-feet per year by 2020 and at least one million acre-feet per year by 2030.
- Increase the amount of water conserved in urban and industrial areas by comparison to 2007 by at least 20 percent by 2020.
- Included in these goals is the substitution of as much recycled water for potable water as possible by 2030.

The Recycled Water Policy provides direction to the RWQCBs regarding issuing permits for recycled water projects, addresses the benefits of recycled water, addresses a mandate for use of recycled water and indicates the State Water Board will exercise its authority to the fullest extent possible to encourage the use of recycled water.

The Recycled Water Policy also indicates that some groundwater basins contain salts and nutrients that exceed or threaten to exceed water quality objectives established in basin plans and states that it is the intent of this Recycled Water Policy that all salts and nutrients be managed on a basin-wide or watershed-wide basis through development of regional or sub-regional management plans. Finally, the Recycled Water Policy addresses the control of incidental runoff from landscape irrigation projects, recycled water groundwater recharge projects, anti-degradation, control of emerging constituents and chemicals of emerging concern and incentives for use of recycled water.

In accordance with the provisions of the Recycled Water Policy, a Constituents of Emerging Concerns (CEC) Advisory Panel was established to address questions about regulating CECs with respect to the use of recycled water. The CEC Advisory Panel's primary charge was to provide guidance for developing monitoring programs that assess potential CEC threats from various water recycling practices, including groundwater recharge/reuse and urban landscape irrigation. On June 25, 2010, the CEC Advisory Panel provided recommendations to the State Water Board and California Department of Public Health in their Final Report "Monitoring Strategies for Chemicals of Emerging Concern in Recycled Water–Recommendations of a Scientific Advisory Panel." The State Water Board used those recommendations to amend the Recycled Water Policy in 2013 (State Water Board Resolution No. 2013-003).

The April 2013 amendment provides direction to the RWQCBs on monitoring requirements for CECs in recycled water. The monitoring requirements pertain to the production and use of recycled water for groundwater recharge reuse by surface and subsurface application methods, and for landscape irrigation. The amendment identifies three classes of constituents to monitor:

- Human health-based CECs: CECs of toxicological relevance to human health.
- Performance indicator CECs: An individual CEC used for evaluating removal through treatment of a family of CECs with similar physicochemical or biodegradable characteristics.
- Surrogates: A measurable physical or chemical property, such as chlorine residual or electrical conductivity that provides a direct correlation with the concentration of an indicator compound. Surrogates are used to monitor the efficiency of CEC treatment.

Only groundwater recharge reuse facilities will be required to monitor for CECs and surrogates. Surface application and subsurface application facilities will have different mandatory CECs and a different monitoring schedule. Monitoring is not required for recycled water used for landscape irrigation projects that qualify for streamlined permitting unless monitoring is required under the adopted salt and nutrient management plan. Streamlined permitting projects must meet the criteria specified in the Policy including compliance with Title 22, application at agronomic rates, compliance with any applicable salt and nutrient management plan, and appropriate use of fertilizers.

Water Conservation Act of 2009

Requirements regarding per capita water use targets are defined in the Water Conservation Act of 2009, which was signed into law in November 2009 as part of a comprehensive water legislation package. Known as SB X7-7, the legislation sets a goal of achieving a 20 percent reduction in urban per capita water use statewide by 2020. SB X7-7 requires that retail water suppliers define in their 2010 UWMP the gallons-per-capita-per-day targets for 2020, with an interim 2015 target.

Assembly Bill 1881

AB 1881 expanded previous legislation related to landscape water use efficiency. AB 1881, the Water Conservation in Landscaping Act of 2006, enacted landscape efficiency recommendations of the California Urban Water Conservation Council for improving the efficiency of water use in new and existing urban irrigated landscapes in California. AB 1881 required the California Department of Water Resources (DWR) to update the existing Model Local Water Efficient Landscape Ordinance (MWELO) and local agencies to adopt the updated model ordinance or an equivalent. The law also requires the California Energy Commission to adopt performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.

California Integrated Waste Management Act

To minimize the amount of solid waste that must be disposed of by transformation and land disposal, the State legislature passed Assembly Bill (AB) 939, the California Integrated Waste Management Act of 1989, effective January 1990. The legislation required each local jurisdiction in

the State to set diversion requirements of 25 percent by 1995 and 50 percent by 2000; established a comprehensive statewide system of permitting, inspections, enforcement, and maintenance for solid waste facilities; and authorized local jurisdictions to impose fees based on the types or amounts of solid waste generated. In 2007, SB 1016, Wiggins, Statutes of 2008, Chapter 343, introduced a new per capita disposal and goal measurement system that moves the emphasis from an estimated diversion measurement number to using an actual disposal measurement number as a per capita disposal rate factor. As such, the new disposal-based indicator (pounds per person per year) uses only two factors: (1) a jurisdiction's population (or in some cases employment) and (2) its disposal as reported by disposal facilities.

Assembly Bill 2882

AB 2882 was passed in 2008 and encourages public water agencies throughout California to adopt conservation rate structures that reward consumers who conserve water. AB 2882 clarifies the allocation-based rate structures and establishes standards that protect consumers by ensuring a lower base rate for those who conserve water.

Title 24, California's Energy Efficiency Standards for Residential and Nonresidential Buildings

Title 24, Part 6, of the California Code of Regulations establishes California's Energy Efficiency Standards for Residential and Nonresidential Buildings. The standards were updated in 2013. The 2013 standards set a goal of reducing growth in electricity use by 561.2 gigawatt-hours per year (GWh/y) and growth in natural gas use by 19 million therms per year. The savings attributable to new nonresidential buildings are 151.2 GWh/y of electricity savings and 3.3 million therms. For nonresidential buildings, the standards establish minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., heating, ventilation, and air conditioning [HVAC]; and water heating systems), indoor and outdoor lighting, and illuminated signs.

Local

City of Suisun City

General Plan

Suisun City General Plan sets forth the following goals, objectives, and policies relevant to public services and utilities:

Objective OSC-7 Assess long-term water supply and incorporate water conservation measures within Suisun City.

Policy OSC-7.2 The City will require demonstration of adequate long-term water supply for large development projects, as defined in Water Code 10912(a) (also known as Senate Bills 610 and 221).

Policy OSC-7.3 The City will condition approval of new developments on the availability of sufficient water supply, storage, and fire flow (water pressure), per City standards.

Policy OSC-7.4 The City will require the use of water conservation technologies, such as low-flow toilets, efficient clothes washers, and efficient water-using industrial equipment in new construction, in accordance with code requirements.

Policy OSC-7.8 New developments shall incorporate climate-appropriate landscaping to reduce water demand and ongoing maintenance costs.

Goal OSC-8 Improve energy efficiency, encourage renewable energy generation and use, and reduce ongoing household and business energy costs.

Objective OSC-8 Exceed statewide energy efficiency gains in Suisun City between present and 2035.

Policy-OSC-8.1 The City will implement relevant policies from the Land Use and Transportation Elements that encourage connected transportation networks, provide for alternate modes of transportation, and encourage mixed-use and compact development patterns to reduce transportation energy use in Suisun City.

Policy OSC-8.2 The City will require that new developments are designed for maximum energy efficiency, taking into consideration such factors as building-site orientation and construction, articulated windows, roof overhangs, appropriate building and insulation materials and techniques, and other architectural features that improve passive interior climate control.

Policy OSC-8.3 The City will encourage landscaping methods, materials, and designs that promote energy conservation.

Policy OSC-8.5 The City will require that new buildings meet State standards for energy efficiency and provide for renewable energy development and use, to the greatest extent feasible.

Goal CFS-1 Provide facilities and services to new and existing residents and businesses at levels that maintain or improve the local quality of life and fiscal sustainability of the community.

Objective CFS-1 Plan, prioritize, program, and fund community facilities and services to accommodate development anticipated at buildout of the 2035 General Plan.

Policy CFS-1.1 New developments will be required to demonstrate, to the satisfaction of the City Engineer, that existing services and utilities can accommodate the increased demand generated by the subject project or that project conditions would adequately mitigate for impacts associated with addition demand.

Goal CFS-2 Maintain public safety facilities and services for new and existing residents and businesses that protect the public health, safety, and welfare.

Objective CFS-2 Provide staffing levels, facilities, and community design required to maintain acceptable emergency response times and effective public safety services.

Policy CFS-2.2 New developments will be required to design, and the City will maintain streets that facilitate acceptable emergency access and response times.

Policy CFS-2.3 New developments shall be designed, constructed, and equipped consistent with requirements of the California Fire Code to reduce fire risk.

Policy CFS-2.5 The Police Department should review development proposals and provide recommendations that would ensure adequate access and community surveillance.

Policy CFS-2.6 The Fire Department should review development proposals and provide recommendations that would ensure adequate emergency access, fire suppression equipment, and other features that reduce fire risk.

Goal CFS-6 Provide an adequate supply of clean and safe water to meet anticipated demand.

Objective CFS-6 Ensure ongoing maintenance and improvements to the water system and adequate supply to meet the needs of existing and new development.

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.

Goal CFS-7 Provide for adequate sewage system capacity, treatment, and disposal.

Objective CFS-7 Facilitate Fairfield-Suisun Sewer District's Master Plan and ensure that future sewage systems are designed to meet or exceed all applicable water quality standards and are located to protect waterways, the Suisun Marsh, and other groundwater resources.

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.

Goal CFS-8 Provide storm drainage and flood protection systems that protect property, ensure public safety and environmental health, and prevent erosion and flooding.

Objective CFS-8 Maintain adequate storm drainage and plan for phased improvements to drainage infrastructure to serve new growth and address existing deficiencies.

Policy CFS-8.2 New developments will be required to construct and dedicate facilities for drainage collection, conveyance, and detention and/or contribute on a fair-share basis to areawide drainage facilities that serve additional demand generated by the subject project

Goal CFS-9 Provide safe, convenient, and environmentally responsible waste disposal and recycling services.

Objective CFS-9 To ensure adequate solid waste disposal services and increase recycling and reuse among residents, businesses, and the City.

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.

3.13.4 - Methodology

This section is based on the information provided by a number of sources, which are described below.

KSN prepared a WSA for SSWA that evaluated water supply impacts in accordance with Water Code Section 10910. The WSA is provided in its entirety in Appendix M. The WSA is a required component of the environmental review process under CEQA. The document concludes that, although "existing" supplies are not sufficient to serve the proposed project, a potential "additional" or "future" supply that could be feasibly pursued. It would involve an exchange between Suisun City and SID by which the City transferred its State Water Project North Bay Aqueduct "entitlement" for a reliable annual supply for the project using Solano Project water from Lake Berryessa.

The FSSD 2016 Limited Update of Sewer Master Plan prepared by GEI Consultants, Inc. assessed the adequacy of the FSSD sewer collection system to serve approved and planned development within its service area. FSSD identified the need to update the current sewer system models and assess the impact of these proposed development projects on the currently proposed improvement projects as well as identifying other sewer system improvements that might be triggered by the land use changes. The Limited Update is provided in Appendix H.4.

Additionally, FirstCarbon Solutions (FCS) reviewed relevant City documents, including Suisun City General Plan and Suisun City Municipal Service Review. FCS also reviewed document and websites produced by Suisun City, FSSD, and the California Department of Resources Recycling and Recovery.

3.13.5 - Thresholds of Significance

Appendix G to the CEQA Guidelines is a sample Initial Study Checklist that includes questions for determining whether impacts related to utilities and service systems are significant. These questions reflect the input of planning and environmental professionals at the California Governor's Office of

Planning and Research (OPR) and the California Natural Resources Agency, based on input from stakeholder groups and experts in various other governmental agencies, nonprofits, and leading environmental consulting firms. As a result, many lead agencies derive their significance criteria from the questions posed in Appendix G. The City has chosen to do this for this proposed project. Thus, the proposed project would have a significant effect if it would:

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years;

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;

d) 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

e) Comply with federal, State, and local statutes and regulations related to solid waste.

3.13.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Water Supply

Impact USS-1:	**The proposed project would not require new or expanded water supply entitlements that have physical impacts on the environment.**

Impact Analysis

The proposed project would be served with potable water by SSWA. The proposed project would connect to existing SSWA water lines located in Walters Road and Petersen Road.

The WSA estimated demand for both the proposed project (Suisun Logistics Center) and the Highway 12 Logistics Center. As shown in Table 3.13-5, the combined water demand estimate is 240 acre-feet annually. The projected demand for the proposed project is approximately 120 acre-feet. The ultimate buildout SSWA demand is estimated to be 4,685 acre-feet annually.

Table 3.13-5: Summary of Water Supply and Demand by Service Areas

Service Areas	Demand (AF)	Supply Suisun City (AF)	Supply by SID (AF)
Current City Service Area	1,385	1,600	
Current Joint Service Area	2,935	(1,600-1,385) = 215	2,720
Proposed SLC and Hwy 12	240		240[a]
Outside Areas[b]	115		
Total	**4,560**		
Tolenas	105		105
Suisun Valley	20		20
SSWA Total	**4,685**	**1,600**	**3,085**

Notes:
AF = acre-feet
AFY = acre-feet per year
SID = Solano Irrigation District
SLC = Suisun Logistics Center
SSWA = Suisun-Solano Water Authority
[a] 240 AFY has been made available to the proposed development by SID through the Second Amendment to the Suisun/Solano Implementation Agreement and Lease Agreement.
[b] Estimated values for ultimate water demand (excluded proposed SLC and Hwy 12 Projects) in the area outside Suisun City and the SID boundary. Area A.3 and Area B.2 in Appendix A. Excluded from the total.
Source: KSN. 2022.

As previously discussed SSWA relies exclusively on the Solano Project and cannot directly access its State Water Project entitlement. In August 2022, the City of Suisun City and SID entered into a second amended implementation/lease agreement that allows the City to transfer its State Water Project entitlement to SID in exchange for additional Solano Project water deliveries to SSWA. Therefore, the 120 acre-feet per year of water supply needed for the proposed project would originate from the Solano Project. As a result, to meet customer demands, the SID could, in turn, withdraw 120 acre-feet of State Water Project's North Bay Aqueduct.

As described in *Water Supply Environmental Effects Analysis for the Suisun Logistics Center*, included in the Draft EIR as Appendix M, the annual delivery of 120 acre-feet of water to the proposed project would have less than significant physical impacts on the environment. The area of potential effect would be limited to waterbodies within the Putah Creek watershed associated with the Solano Project, which are Lake Berryessa and Putah Creek, and Barker Slough where the intake to the North Bay Aqueduct is located.

The proposed project annual water supply of 120 acre-feet would comprise less than 0.03 percent of the lowest lake volume for Lake Berryessa. The proposed project water demand is so small compared to Lake Berryessa storage volume that the proposed project would not cause substantial, if any, changes to the lake's seasonal end-of-month storage levels, thermal profiles, biochemical processes, dilution capacity, or available habitat. As such, the proposed project's use of Solano Project water would not result in substantial adverse effects to phytoplankton, zooplankton, benthic

macroinvertebrate, or emergent and submerged macrophyte communities, or any of the lake's other aquatic biological resources. Likewise, any small effect on Lake Berryessa storage would have no effect on cold water or warm water fish habitat within the lake because the small effect on storage would not affect available habitat or the thermal profile of the lake.

The amount of additional Solano Project water released from Lake Berryessa into Putah Creek for the proposed would be so small compared to existing flow requirements that there would be negligible changes to flow in Putah Creek. Assuming a constant delivery of water to the project, a 120 acre-feet annual supply is equal to 0.33 acre-feet per day or 0.17 cubic feet per second (cfs). This flow rate is 0.2 percent of the minimum monthly average flow below Monticello Dam (82 cfs) and 1 percent of the minimum daily flow rate required to be released at Putah Diversion Dam to Lower Putah Creek (16 cfs). Furthermore, SCWA Solano County Water Agency would continue to operate the Putah Diversion Dam to meet Putah Creek Accord flow requirements. Such minor changes in releases of Lake Berryessa water into Putah Creek would not cause substantial, if even measurable, changes to Putah Creek daily flows or water quality conditions within Putah Creek. Therefore, the delivery of water to the proposed project also would not affect Putah Creek aquatic biological resources because the small effect on flows would not affect aquatic habitat quantity or quality, including the seasonal thermal regime of the creek.

Additional pumping of State Water Project water from Barker Slough to replace the 120 acre-feet SID delivers to SSWA for the proposed project would not result in substantial, if any, effects to water quality or habitat conditions in the slough. Assuming SID diverts this water primarily during a 5-month period within the peak irrigation season, the associated diversion rate would be 0.40 cfs, which is 0.3 percent of the Barker Slough Pumping Plant capacity and approximately 0.5 percent of the historical average summer diversion rate. Furthermore, operation of the Barker Slough Pumping Plant is subject to requirements in an incidental take permit issued by the California Department of Fish and Wildlife (CDFW) and United States Fish and Wildlife Service (USFWS) biological opinion for protection of Delta special-status species, including Delta smelt.

Delivery of water to the proposed project would not impact other aspects of the physical environment (e.g., aesthetics, geology and soils) because: (1) they are not present in the vicinity of the water delivery facilities associated with the project; or (2) the resources may be present in these areas, but impacts are not anticipated to occur (a) because no impact mechanism link exists between hydrologic changes associated with the project water supply and the resource, or (b) because the potential impacts would be negligible or speculative.

Based on the above discussion and the analysis presented in *Water Supply Environmental Effects Analysis for the Suisun Logistics Center* (Appendix M), the proposed project would not require new or expanded water supply entitlements that have physical impacts on the environment. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Wastewater

Impact USS-2: The proposed project would not create a need for new or expanded wastewater collection or treatment facilities.

Impact Analysis

The proposed project would be served by FSSD for wastewater collection and treatment. Table 3.13-6 estimated the proposed project's wastewater generation. The proposed project would generate 205,866 gallons of effluent per day (0.21 mgd) at buildout.

Table 3.13-6: Wastewater Generation Estimate

Square Feet	Wastewater Generation Rate	Daily Wastewater Generation
2,058,667	0.1 gallon/square foot/day	205,866 gallons (0.21 mgd)

Notes:
mgd = million gallons per day
Source: Fairfield-Suisun Sewer District (FSSD). 2021.

The existing FSSD trunk sewer system in the project vicinity consists of a 27-inch-diameter line within Petersen Road between Travis Air Force Base and Walters Road and a 39-inch-diameter line downstream of Walters Road that conveys effluent to the Chadbourne Road Treatment Plant.

The Fairfield-Suisun Sewer District 2016 Limited Update of Sewer Master Plan evaluated whether the existing 27-inch-diameter Petersen Road Trunk Sewer had sufficient capacity to accommodate effluent generated by the proposed project. The Limited Update modeled a peak wet weather flow scenario of effluent generated by project buildout in conjunction with a 20-year storm event and found that both the 27-inch and 39-inch lines had sufficient capacity. The Limited Update concluded that the existing sewer system has sufficient capacity to serve the proposed project.

The treatment plant has a design capacity of 23.7 mgd and treats 10-15 mgd of effluent on a typical day. The addition 0.21 mgd of effluent from the proposed project would represent 1-2 percent of the 8.7-13.7 mgd of available capacity on a typical day at the Chadbourne Road Treatment Plant. Thus, adequate treatment capacity would be available. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Storm Drainage

Impact USS-3:	**The proposed project would not create a need for new or expanded downstream storm drainage facilities.**

Impact Analysis

The proposed project would result in the development of 2.1 million square feet of high-cube warehouse uses on 120 acres of the project site. The remaining 47 acres would be preserved as open space. Thus, the proposed project would increase the amount of impervious surface coverage on the project site and would create the potential for increased runoff leaving the project site that may create potential flooding conditions in downstream waterways.

The proposed project would install a storm drainage system designed for a 15-year storm event. Inlets would capture surface runoff, where it would enter an underground piping system that would convey stormwater to one of four basins. The basins would provide 323,280 square feet (7.6 acres) of stormwater retention.

The two existing drainage channels that cross the project site would be abandoned. A new drainage channel would divert runoff from the west channel culvert at Petersen Road to a new east channel that would connect to the existing east culvert under SR-12. Hydraulic calculations indicate that the existing east drainage culvert at SR-12 has capacity for 168 cubic feet per second (cfs) during a 15-year peak storm event. The combined runoff from the west and east channel was calculated to be 157 cfs during a 15-year peak storm event; thus, the existing culvert would not need to be upsized to accommodate the additional runoff.

In accordance with applicable provisions of Section C.3 of the San Francisco Bay RWQCB Municipal Regional Permit (Order No. R2-2015-0049, NPDES Permit No. CAS612008) as required under Mitigation Measure (MM) HYD-1b and pursuant to provisions of the Fairfield-Suisun Urban Runoff Management Program, the proposed project would implement LID stormwater management methods into the on-site storm drainage system consisting of rainwater harvesting and use, infiltration, evapotranspiration, or biotreatment.

Collectively, these measures would serve to slow, reduce, and meter the volume of runoff leaving the project site and ensure that downstream storm drainage facilities are not inundated with project-related stormwater such that new or expanded facilities would be required. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Solid Waste

Impact USS-4: The proposed project's solid waste would not create a need for additional landfill capacity.

Impact Analysis

This impact discussion assesses whether the proposed project would be served by a landfill with adequate capacity or comply with federal, State, and local statutes and regulations related to solid waste. Solid waste would be generated by construction and operational activities. Each is discussed as follows.

Construction Waste

The proposed project would result in the construction of close to 2.1 million square feet of commercial and industrial uses. Using a nonresidential construction waste generation rate published by the United States Environmental Protection Agency (EPA), an estimate of the total construction debris generated by the proposed project is provided in Table 3.13-7.

Table 3.13-7: Construction Solid Waste Generation

Waste Generation Rate	Square Feet	Construction Waste Generation	
		Tons	Cubic Yards
3.89 pounds/square foot	2,058,667	4,004	5,606

Notes:
1 ton = 2,000 pounds; 1 ton = 1.4 cubic yards
Source: United States Environmental Protection Agency (EPA). 1998; FirstCarbon Solutions (FCS). 2021.

Development of the proposed project would generate an estimated 5,606 cubic yards of construction debris. This waste volume represents less than 0.01 percent of the 38.8 million cubic yards of remaining capacity at the Potrero Hills Landfill. Moreover, the values shown in the table do not adjust construction solid waste generation to account for construction debris recycling that would serve to divert waste from the landfill. Therefore, short-term construction impacts on landfill capacity would be less than significant.

Operational Waste

Table 3.13-8 summarizes the proposed project's operational waste generation based on rates provided by Cal Recycle.

Table 3.13-8: Operational Solid Waste Generation

Waste Generation Rate	Square Feet	Operational Waste Generation	
		Tons	Cubic Yards
4.8 pounds/square foot	2,058,667	4,941	6,917

Notes:
1 ton = 2,000 pounds; 1 ton = 1.4 cubic yards
Source: California Department of Resources Recycling and Recovery (CalRecycle); FirstCarbon Solutions (FCS). 2021.

The proposed project would generate an estimated 6,917 cubic yards of operational solid waste on an annual basis at buildout. This waste volume represents less than 0.01 percent of the 38.8 million cubic yards of remaining capacity at the Potrero Hills Landfill. Moreover, the values shown in the table do not adjust operational solid waste generation to account for recycling and waste reduction activities that would serve to divert waste from the landfill. Therefore, long-term operational impacts on landfill capacity would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

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