

3.15 UTILITIES AND SERVICE SYSTEMS

This section provides an overview of existing utilities and service systems as relevant to the proposed project, including water supply, wastewater service, and solid waste disposal. Impacts are evaluated in relation to increased demand for utilities and public services associated with the proposed project and actions needed to provide the infrastructure that could potentially lead to physical environmental effects.

Section 3.6 of ~~this~~ this Recirculated Draft EIR, “Energy” addresses energy demand and facilities.

3.15.1 ENVIRONMENTAL SETTING

Utilities and service systems would be provided to future development by the Sacramento County Water Agency (SCWA), the Sacramento Area Sewer District (SASD) (formerly known as County Sanitation District-1), and Sacramento Regional County Sanitation District (SRCSD). The following discussion provides an overview of these utility service providers.

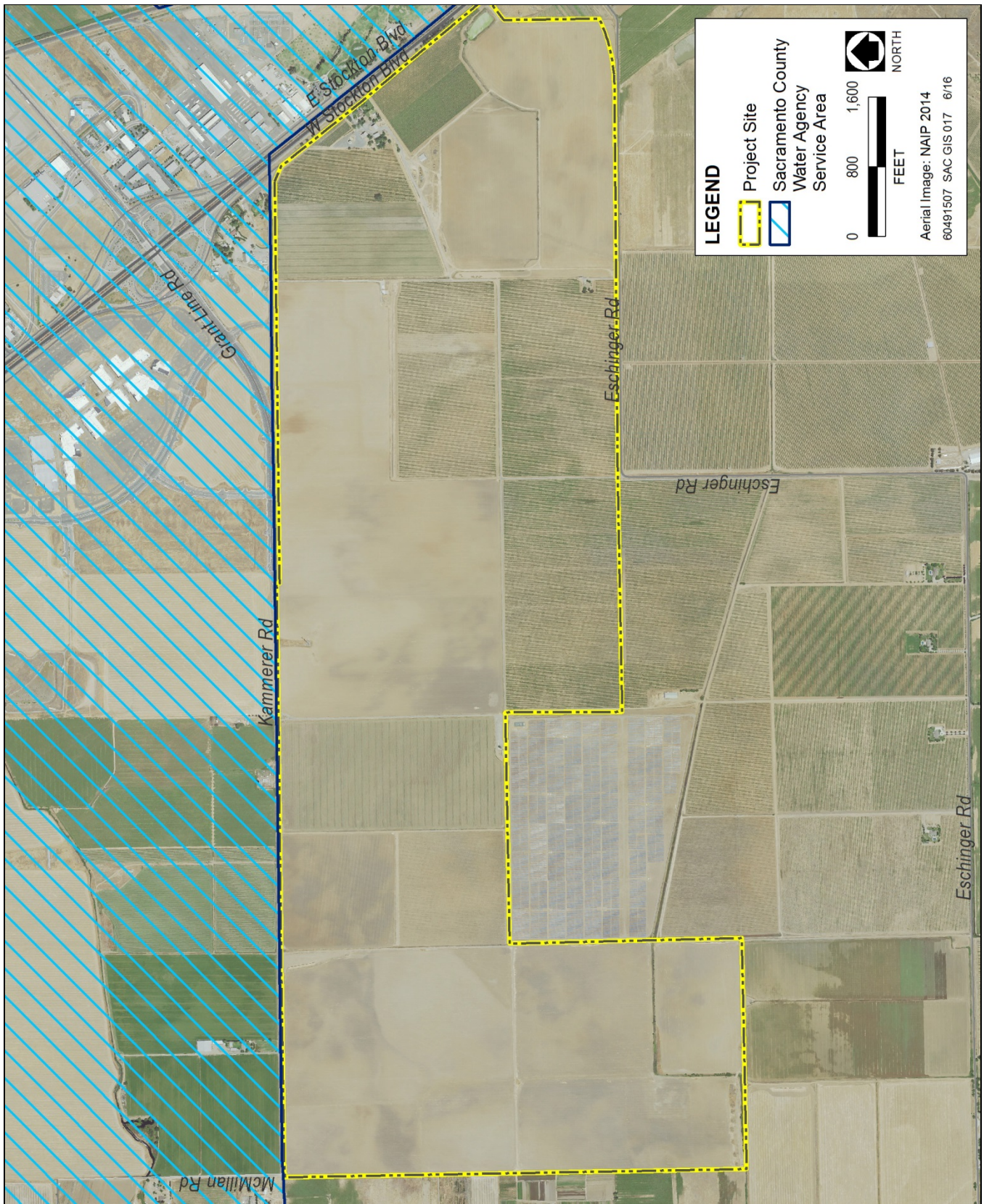
WATER SUPPLY

Presently, there are no public water supply facilities within the SOIA Area, and non-treated water supplies are provided by irrigation wells. There are also idle wells on-site which have not been abandoned. The water use for the SOIA Area was estimated using average annual water demand factors and the acreage of crop types within the SOIA Area. As shown in Table 3.15-1, the total annual water usage for agricultural crops on the SOIA Area is 1,833.5 acre-feet per year (afy).

Crop Type	Average Annual Water Use per Acre		Estimated Acres within SOIA Area	Total Annual Water Usage (afy)
	Acre-Feet	Gallons		
Alfalfa	5.0	1,629,257	46.9	234.5
Hay Grass	1.4	456,192	626.0	876.4
Vineyard	1.9	619,118	380.3	722.6
Non-Crop uses (canal, developed, ditch, fallow, pond)	N/A	N/A	99.97	N/A
Total	8.3	2,704,567	1,153.17	1,833.5

Notes: afy = acre-feet per year
 Note: Average acre-feet applied per acre values used from Johnson and Cody 2015. For hay grass, the value for grains was used. For vineyard, the value for vines was used.
 Source: Average Annual Water Use per Acre from Johnson and Cody 2015.

Future development of the SOIA Area would require adequate treated water service. The SCWA provides water supplies to the majority of the city, including the area north of Kammerer Road. Because the SOIA Area is immediately adjacent to the southwestern boundary of SCWA’s Zone 40, it is most likely that water service would be provided by SCWA (Exhibit 3.15-1). SCWA is not subject to LAFCo purview; any changes to the SCWA service area would be overseen by the County Board of Supervisors.



Source: Sacramento County 2011

Exhibit 3.15-1

Sacramento County Water Agency Service Area

Zone 40 consists of approximately 86,000 acres of agricultural, residential, and industrial land in central Sacramento County. Zone 40 is bordered by the County's Urban Services Boundary on the northeast, east, and southeast, and the northern edge of the 100-year floodplain of Deer Creek is also located to the east and southeast within the Zone 40 boundaries. Interstate 5 forms the western boundary and the Douglas Road and Grant Line Road areas form the southern boundary.

There are three primary planning documents that form the planning basis for the Zone 40 service area:

- ▶ The *2005 Zone 40 Water Supply Master Plan (WSMP)* (SCWA 2005) was developed in response to the requirements of the Water Forum Agreement (WFA).¹ As a signatory to the WFA, SCWA has agreed to ensure that water conservation and demand management—necessary steps to achieve WFA objectives—are integrated into future growth and water planning activities in its service area. The Zone 40 WSMP provides a flexible plan of water management options that can be implemented and modified if conditions that affect the availability and feasibility of water supply sources change in the future. The Zone 40 WSMP evaluates several options for facilities to deliver surface water and groundwater to development to a subarea within Zone 40 known as the 2030 Study Area, as well as the financing mechanisms to provide water to the 2030 Study Area. The 2030 Study Area encompasses approximately 46,600 acres where development of industrial, commercial, office, and residential land uses is expected to occur and where demand for water is expected to be concentrated during the planning horizon of the WSMP.
- ▶ The *2010 Zone 41 Urban Water Management Plan (Zone 41 UWMP)* (SCWA 2011) addresses water supply and demand issues, water supply reliability, water conservation, water shortage contingencies, and recycled-water usage for the areas within Sacramento County where Zone 41 provides retail water services, including the Zone 40 service area and other areas outside of Zone 40 where Zone 41 has contracts to provide water (e.g., Zone 50, Sacramento Suburban Water District). Because SCWA's conjunctive-use groundwater program would be implemented only within Zone 40, the Zone 41 UWMP presents information about projected water supply and demand separately for areas within Zone 40 and areas outside of Zone 40.
- ▶ The *Zone 40 Water System Infrastructure Plan (Zone 40 WSIP)* (November 2006) addresses how 2030 water supplies addressed in both the Zone 41 UWMP and the Zone 40 WSMP would be allocated among users within its service area. The Zone 40 WSIP provides the most up-to-date information on Zone 40's water supplies, demands, and infrastructure; provides project-level detail that is necessary for implementation of the preferred pipeline alignment alternatives that were identified in the 2005 Zone 40 WSMP; and it fills in the gaps of associated smaller infrastructure requirements, including a description of facility construction and phasing, as well as operational requirements from existing conditions through ultimate buildout of the water system.

Water Supply Sources for SCWA Zone 40

Since its formation, Zone 40 has had as its goal the development of a conjunctive-use water supply system. As such, the areas inside Zone 40 are served conjunctively with groundwater (pumped from the South American Sub-basin of the Sacramento Valley Groundwater Basin, which is identified locally as the Central Basin), surface water, and recycled water. SCWA's conjunctive use program is a coordinated approach to manage surface water

¹ The coequal objectives of the Water Forum Agreement are (1) to provide a reliable and safe water supply for the region's economic health and planned development through the year 2030; and (2) to preserve the fishery, wildlife, recreational, and aesthetic values of the lower American River.

and groundwater supplies to maximize the yield of available water resources. In wet and normal water years, SCWA would divert surface water from the American and Sacramento Rivers, consistent with the entitlement contracts described above. The underlying groundwater basin would be replenished in wet years as a result of this reliance on surface water. In dry water years, SCWA's surface water could be reduced based on recommended dry-year cutback volumes outlined in the Water Forum Agreement—those volumes that purveyors have agreed not to divert from the American River during dry years. During dry years, SCWA would increase groundwater pumping so that it could continue to meet the water demand of its customers.

Surface-Water Supplies

SCWA surface-water supplies are obtained from the following sources (SCWA 2005):

- ▶ Central Valley Project Water (Public Law 101-514 ["Fazio water"]) – SCWA executed a Central Valley Project (CVP) water-service contract pursuant to Public Law 101-514 (referred to as "Fazio water") that provides a permanent water supply of 22,000 acre-feet per year (afy), with 15,000 afy allocated to SCWA and 7,000 afy allocated to the City of Folsom.
- ▶ SMUD 1 Assignment – 15,000 afy of SMUD's CVP contract water has been assigned to the SCWA under the terms of an agreement with SMUD. The long-term availability of SMUD 1 water is 13,000 afy.
- ▶ SMUD Assignment 2 – 15,000 afy of SMUD's CVP contract water has been assigned to the SCWA under the terms of an agreement with SMUD. The long-term availability of SMUD 1 water is 13,000 afy.
- ▶ Appropriative Water Supplies – the State Water Resources Control Board (SWRCB) appropriates water from the American River to SCWA under Permit 21029. This water is considered "intermittent water" that typically would be available during normal years or wet years. The maximum, minimum, and average annual use of appropriative water is 44,800 acre-feet (af), 0 af, and 21,700 af, respectively.
- ▶ City of Sacramento's American River Place of Use Agreement – The City of Sacramento provides wholesale American River water to SCWA for use in a portion of the SCWA 2030 Study Area that lies within the City of Sacramento's American River POU. The estimated long-term average volume of water that would be used by SCWA within this Place of Use Agreement would be approximately 9,300 afy.
- ▶ Other Transfer Supplies – SCWA is pursuing purchase and transfer agreements with other entities north of its service area in the Sacramento River basin. SCWA's estimated long-term average use of these water supplies would be approximately 5,200 afy. This water would be purchased only in dry and critically dry years.

Recycled Water

Approximately 4,400 afy of recycled water is currently provided to SCWA by SRCSD. This water is used within the Zone 40 service area to offset demand by parks and for other nonpotable uses.

Groundwater Supplies within SCWA Zone 40

Approximately 75 percent of SCWA's water supply comes from groundwater wells. SCWA pumps groundwater from the South American Sub-basin of the Sacramento Valley Groundwater Basin (identified locally as the Central Basin). This groundwater basin is not adjudicated. As a signatory to the Water Forum Agreement, SCWA

is committed to adhering to the ~~According to the Water Forum Agreement, the annual~~ long-term average sustainable yield of this basin is the Central Basin (273,000 acre-feet) (SCWA 2011). As shown in Table 3.10-2 in Section 3.10, “Hydrology and Water Quality,” of this Recirculated Draft EIR, groundwater extraction has been within the Water Forum Agreement’s sustainable yield from 2005 to 2015. (See Section 3.10, “Hydrology and Water Quality,” for further discussion of groundwater conditions in the Central Basin.)

SCWA Zone 40 Water Supplies and Demands

The Zone 41 UWMP addresses water supply and demand issues, water supply reliability, water conservation, water shortage contingencies, and recycled-water usage for the areas within Sacramento County where Zone 41 provides retail water services, including Zone 40. In accordance with Senate Bill (SB) x7-7, the Zone 41 UWMP estimates water demands are based on an estimated gallons per-capita, per-day target chosen by SCWA (SCWA 2011:5). Water supplies and demands within SCWA Zone 40 would be the same during normal, single-dry, and multiple-dry years; however, the year-to-year mix of surface and groundwater would be adjusted, as necessary, to meet the demands as part of its conjunctive use water supply program. Table 3.15-1 identifies surface water and groundwater supply and demand within SCWA Zone 40 from 2010 to 2035 in normal, single dry, and multiple dry years. As shown in Table 3.15-2, SCWA would have water supplies that exceed demands in all water years.

SCWA anticipates that at buildout of its service area, and assuming that appropriative water and CVP contract water continue to be available, surface water will account for approximately 70 percent of water supplies during average and wet years and account for approximately 30 percent of water supplies in the driest years, thereby resulting in a long-term average of approximately 60 percent of water demands being met by surface water supplies (SCWA 2017).

WATER SUPPLY INFRASTRUCTURE

SCWA prepared the Zone 40 WSIP to address how water supplies in both the Zone 41 UWMP and the Zone 40 WSMP would be allocated among users within its service area. The purposes of this WSIP are to describe and quantify the facilities necessary to extract, treat, and convey groundwater to the Zone 40 service area. The SOIA Area is outside of the Zone 40 Water Supply Master Plan Study Area (SCWA 2006).

There are several major points of connection to major SWCA infrastructure near the SOIA Area boundaries. SWCA’s nearest water transmission mains are located in Promenade Parkway and Kammerer Road adjacent to the northern boundary of this SOIA Area. Additional SCWA infrastructure is located along Bilby Road at West Stockton Boulevard and at the Grant Line Road/State Route 99 interchange (LAFCo 2013). The Poppy Ridge Water Treatment Plant (WTP) is located near the intersection of Bruceville Road and Poppy Ridge Road (SCWA 2006). The Zone 40 WSIP shows the future Big Horn WTP, located near the intersection of Elk Grove Boulevard and Big Horn Boulevard, planned as a Phase 1 facility, and the Whitelock WTP, planned as a Phase 2 facility in The Zone 40 WSIP. Additional water conveyance pipelines are proposed along Big Horn Boulevard and Whitelock Parkway (SCWA 2006).

Table 3.15-2 Comparison of Water Supply and Demand in Zone 40 (2010–2035)¹							
Water Year	Source	Projected Demands (afy)					
		2010	2015	2020	2025	2030	2035
Normal Year	Supply						
	Groundwater	35,000	20,000	15,000	20,000	25,000	15,000
	Surface water	12,320	35,000	42,500	50,000	57,500	81,200
	Recycled water	1,000	3,000	4,400	4,400	4,400	4,400
	Remediated groundwater to serve Rio del Oro in Zone 40	0	0	2,500	5,000	7,500	8,900
	Total Supply	48,320	58,000	64,400	79,400	103,700	109,500
	Total Demand	34,511	44,425	50,662	57,583	67,565	77,712
Difference (Supply minus Demand)		13,806	13,575	13,738	21,817	36,135	31,788
Single-Dry Year	Supply						
	Groundwater	39,930	46,300	48,800	61,300	64,500	68,600
	Surface water	7,390	8,700	8,700	8,700	18,000	27,600
	Recycled water	1,000	3,000	4,400	4,400	4,400	4,400
	Remediated groundwater to serve Rio del Oro in Zone 40	0	0	2,500	5,000	7,500	8,900
	Total Supply	48,320	58,000	64,400	79,400	103,700	109,500
	Total Demand	34,511	44,425	50,662	57,583	67,565	77,712
Difference (Supply minus Demand)		13,806	13,576	13,738	21,817	26,832	31,788
Multiple-Dry Year 1	Supply						
	Groundwater	36,232	32,500	30,500	38,500	37,200	36,800
	Surface water	11,088	22,500	27,000	31,500	45,300	59,400
	Recycled water	1,000	3,000	4,400	4,400	4,400	4,400
	Remediated groundwater to serve Rio del Oro in Zone 40	0	0	2,500	5,000	7,500	8,900
	Total Supply	48,320	58,000	64,400	79,400	103,700	109,500
	Total Demand	34,511	44,425	50,662	57,583	67,565	77,712
Difference (Supply minus Demand)		13,806	13,576	13,738	21,817	26,832	31,788
Multiple-Dry Year 2	Supply						
	Groundwater	37,464	35,000	33,500	42,000	41,200	41,300
	Surface water	9,856	20,000	24,000	28,000	41,300	54,900
	Recycled water	1,000	3,000	4,400	4,400	4,400	4,400
	Remediated groundwater to serve Rio del Oro in Zone 40	0	0	2,500	5,000	7,500	8,900
	Total Supply	48,320	58,000	64,400	79,400	103,700	109,500
	Total Demand	34,511	44,425	50,662	57,583	67,565	77,712
Difference (Supply minus Demand)		13,806	13,576	13,738	21,817	26,832	31,788
Multiple-Dry Year 3	Supply						
	Groundwater	38,080	36,250	35,000	43,750	43,200	43,550
	Surface water	9,240	18,750	22,500	26,250	39,300	52,650
	Recycled water	1,000	3,000	4,400	4,400	4,400	4,400
	Remediated groundwater to serve Rio del Oro in Zone 40	0	0	2,500	5,000	7,500	8,900
	Total Supply	48,320	58,000	64,400	79,400	103,700	109,500
	Total Demand	34,511	44,425	50,662	57,583	67,565	77,712
Difference (Supply minus Demand)		13,806	13,576	13,738	21,817	26,832	31,788

Notes: afy = acre-feet per year

¹ Water supplies and demands within SCWA Zone 40 would be the same during normal, single-dry, and multiple-dry years; however, the year-to-year mix of surface and groundwater would be adjusted as necessary to meet the demands as part of its conjunctive use water supply program.

Source: SCWA 2011; Data compiled by AECOM 2016

WASTEWATER COLLECTION, AND CONVEYANCE, TREATMENT FACILITIES

The SOIA Area is not served by a municipal wastewater service provider. Rather, wastewater service is currently provided by on-site septic systems. If there is future development within the SOIA Area, such development would receive municipal wastewater collection and treatment services through extension of SASD and SRCSD infrastructure.

Sacramento Area Sewer District

SASD provides local wastewater collection and conveyance services and infrastructure throughout the Sacramento region. SASD maintains and provides wastewater collection and conveyance from the local residences and businesses in the urbanized, unincorporated areas of Sacramento County; the cities of Elk Grove, Rancho Cordova, and Citrus Heights; portions of the city of Sacramento; and a very small area in the city of Folsom. The service area covers approximately 270 square miles and has a population of over 750,000. The smaller local pipelines that SASD operates connect to the larger regional interceptors maintained by SRCSD.

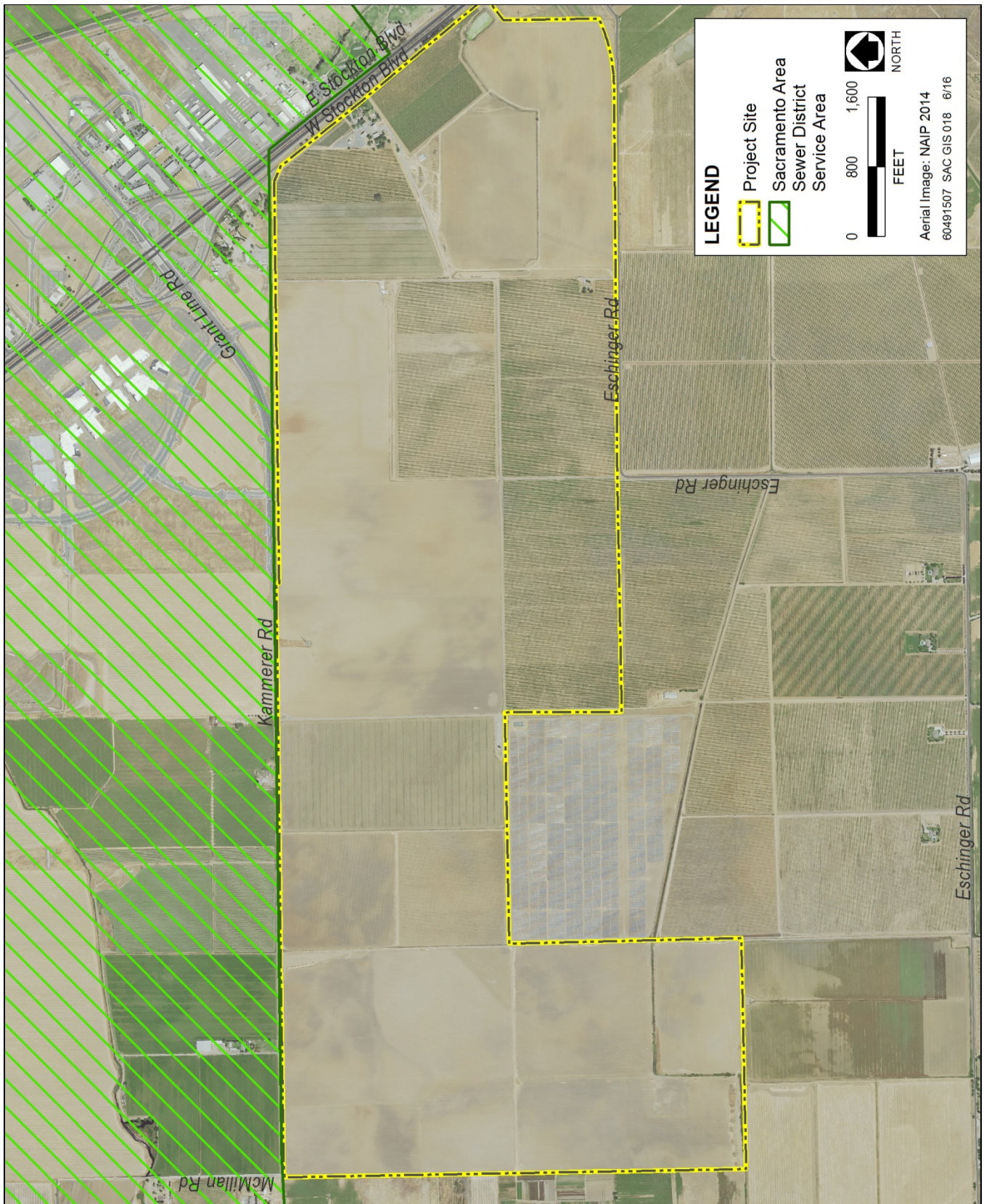
The SOIA Area is located outside of the SASD service area. Currently there are no SASD trunk facilities located in or planned to serve the project area. However, the SASD has indicated that they may provide sewer service to the SOIA Area (Moore, pers. comm., 2016). The closest point of connection to major SASD infrastructure near the SOIA area boundaries would be within the Laguna Ridge Specific Plan and Southeast Policy Area projects along the north side of Kammerer Road. These areas are located in the LA Laguna Ridge Trunk Shed. SASD has indicated that all existing connection points adjacent to the SOIA Area are not designed to accommodate any additional flows from this project and the applicant will need to construct new facilities or upgrade the existing pipelines (Moore, pers. comm., 2017).

The LA Laguna Ridge Trunk Shed is located south of Elk Grove Boulevard between Bruceville Road and State Route 99 (SR 99) (Exhibit 3.15-2). The northern portion of this shed has been constructed and remaining portions to be constructed include a major trunk, a minor trunk, and the Laguna Ridge South Pump Station. The Laguna Ridge South Pump Station will require two force mains and the downstream portion of one of the force mains has already been constructed in Bruceville Road. The timing for these improvements would occur by 2020 or potentially beyond 2020, depending on the amount of conveyance capacity required to serve future development in SASD's LA Laguna Trunk Shed.

Sacramento Regional County Sanitation District

SRCSO is responsible for collection by interceptors (sanitary sewers that are designed to carry flows in excess of 10 million gallons per day [mgd]) and for wastewater treatment in Sacramento County. This district owns, operates, and is responsible for the collection, trunk, and interceptor sewer systems throughout Sacramento County, as well as the Sacramento Regional Wastewater Treatment Plant (SRWTP) located west of Elk Grove.

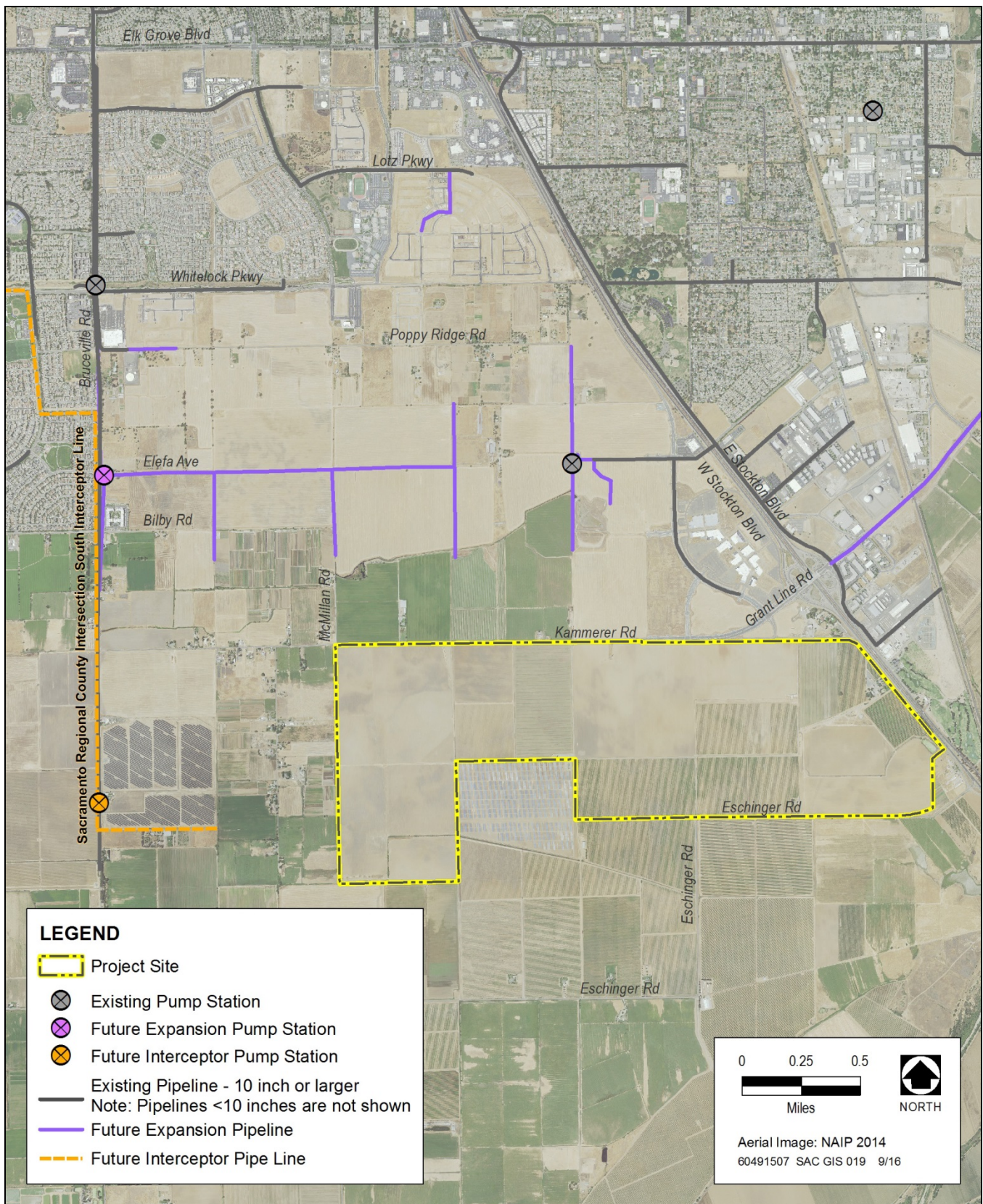
SRCSO has completed an Interceptor Sequencing Study that will aid in planning and implementing regional conveyance projects and assisting contributing agencies in coordination of collection system facilities. The SOIA Area is not within the SRCSO service area; however, off-site wastewater facilities to serve the SOIA Area have been planned for in the SRCSO Interceptor Sequencing Study. The Interceptor Sequencing Study identifies the SOIA Area as the South Area that would be served by the future South Area Interceptor (Exhibit 3.15-3).



Source: SASD 2011

Exhibit 3.15-2

Sacramento Area Sewer District Service Area



Source: SASD Sewer System Capacity Plan 2010 Update

Exhibit 3.15-3

Existing and Future Infrastructure Expansion Plan

Sacramento Regional Wastewater Treatment Plant

Wastewater flows collected from SRCSD interceptors are ultimately transported into the SRWTP. The SRWTP is located west of Elk Grove and is owned and managed by SRCSD. Currently, the SRWTP has a National Pollutant Discharge Elimination System (NPDES) permit issued by the Central Valley Regional Water Quality Control Board (RWQCB) for discharge of up to 181 mgd average dry-weather flow of treated effluent into the Sacramento River. The SRWTP has the potential for expansion to 218 mgd. As of 2015, the SRWTP receives and treats an average of 150 mgd each day and the SRWTP discharge constituents are below permitted discharge limits specified in the NPDES permit (SRCSD 2015).

In 2005, the SRCSD sought an expansion to increase the design capacity of the SRWTP to 218 mgd. In June 2010 the SRCSD removed its formal request to the Central Valley RWQCB for an increase in permitted wastewater discharge capacity. Water conservation and a reduction in water-using industries reversed the growth in wastewater capacity use, despite the substantial growth in its service area. The SRCSD expects per capita consumption to fall 25 percent over the next 20 or more years through the ongoing installation and use of water meters as well as compliance with conservation mandates such as the state Water Conservation Act of 2009 (SB x7- 7). As such, substantial additional conservation is expected throughout the service area, allowing the existing 181 mgd average dry-weather flow capacity to be adequate for at least 40 more years (SRCSD 2014:6-2).

~~SRCSD is upgrading the SRWTP. The upgrade, known as the Echo Water Project, must be built by 2021–2023 to meet new water quality requirements that were issued by the Central Valley RWQCB as part of SRCSD’s 2010 discharge permit. The requirements are designed primarily to help protect the Sacramento–San Joaquin Delta ecosystem downstream by removing most of the ammonia and nitrates and improving the removal of pathogens from wastewater discharge. The upgrade will include deployment of new treatment technologies and facilities, and will increase the quality of effluent discharged into the Sacramento River and ensure that the SRWTP discharge constituents are below permitted discharge limits specified in the NPDES permit. The upgrade will not, however, result in a net increase in permitted capacity of the SRWTP (SRCSD 2015).~~

The SRWTP provides secondary treatment using an activated sludge process. Incoming wastewater flows through mechanical bar screens through a primary sedimentation process. This allows most of the heavy organic solids to settle to the bottom of the tanks. These solids are later delivered to the digesters. Next, oxygen is added to the wastewater to grow naturally occurring microscopic organisms, which consume the organic particles in the wastewater. These organisms eventually settle on the bottom of the secondary clarifiers.

Clean water pours off the top of these clarifiers and is chlorinated, removing any pathogens or other harmful organisms that may still exist. Chlorine disinfection occurs while the wastewater travels through a two-mile “outfall” pipeline to the Sacramento River, near the town of Freeport. Before entering the river, sulfur dioxide is added to neutralize the chlorine.

The design of the SRWTP and collection system was balanced to have SRWTP facilities accommodate some of the wet-weather flows, while minimizing idle SRWTP facilities during dry weather. The SRCSD designed the SRWTP to accommodate some wet-weather flows with the storage basins and interceptors designed to accommodate the remaining wet weather flows. The Central Valley RWQCB issued an NPDES Discharge Permit to the SRCSD in December 2010.

In adopting the new Discharge Permit, the Central Valley RWQCB required the SCRSD to meet substantially more restrictive treatment levels over its current levels. Regional San began the necessary activities, studies, and projects to meet the permit conditions in August of 2014. The SCRSD must complete construction of the new treatment facilities to achieve the permit and settlement requirements by May of 2021 for ammonia and nitrate and by May of 2023 to meet these pathogen requirements.

Recycle Water

The SRCSD currently owns and operates a 5-mgd Water Reclamation Facility (WRF) that has been producing Title 22 tertiary recycled water since 2003. The WRF is located within the SRWTP property. The SRCSD uses a portion of the recycled water at the SRWTP and the remainder is wholesaled to SCWA. SCWA retails the recycled water, primarily for landscape use, to select customers in the city. It should be noted that the SRCSD currently does not have any planned facilities that could provide recycled water to the SOIA Area or its vicinity. Additionally, the SRCSD is not a water purveyor and potential use of recycled water in the SOIA Area must be coordinated between the key stakeholders (e.g., land use jurisdictions, water purveyors, users, and the recycled water producers).

SOLID WASTE

If there is future development within the SOIA Area, this EIR assumes such development would be within the City of Elk Grove. The Integrated Waste Department manages the City of Elk Grove’s residential solid waste franchise and plans, coordinates, promotes and implements citywide solid waste reduction, recycling, composting, and public education activities. In 2014, the City disposed of a total of 78,316 tons of solid waste (CalRecycle 2014).

Residential solid waste services in Elk Grove are provided by Republic Services (formally known as Allied Waste) under an exclusive franchise agreement. Commercial solid waste is collected by private franchised haulers and disposed of at various facilities – primarily Kiefer Landfill, L and D Landfill, and Yolo County Landfill. Table 3.15-3 shows the maximum capacity, remaining capacity, and closure date of these landfills.

Facility (County)	Location	Capacity
Kiefer Landfill (Sacramento County)	12701 Kiefer Boulevard Sloughhouse, CA 95683	Maximum permitted capacity: 117.4 million cubic yards Remaining capacity: 112.9 million cubic yards Closure date: January 1, 2064
L and D Landfill (Sacramento County)	8635 Fruitridge Road Sacramento, CA 95826	Maximum permitted capacity: 6.0 million cubic yards Remaining capacity: 4.1 million cubic yards Closure date: January 1, 2023
Yolo County Central Landfill (Yolo County)	County Road 28 and County Road 104 Davis, CA 95616	Maximum permitted capacity: 49.0 million cubic yards Remaining capacity: 23.7 million cubic yards Closure date: January 1, 2080

Sources: CalRecycle 2016a, 2016b, 2016c

The City of Elk Grove provides a Special Waste Collection Center program that helps residents dispose/recycle their residential and business hazardous waste properly. Elk Grove residents and participating jurisdictions may drop off a full range of hazardous wastes, such as motor oil, antifreeze, batteries, and flammable liquids and

paints. All waste collected is either reused, recycled, processed for energy recovery, or stabilized for proper disposal. As of April 2015, the Special Waste Collection Center received over 123 tons of household hazardous waste.

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 (see below under “Regulatory Framework” for more detail).² For 2014, the target solid waste generation rate for the City of Elk Grove was 5.9 per person and 27.5 pounds per day (ppd) per employee, and the actual measured generation rate was 2.7 ppd per person and 14.2 ppd per employee, which is less than the target solid waste generation rate (CalRecycle 2014).

3.15.2 REGULATORY FRAMEWORK

FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

No federal plans, policies, regulation, or laws pertaining to utilities and service systems are applicable to this 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). 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.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA) of 2014 provides for local control of groundwater sustainability with State oversight. The law became effective January 1, 2015 and states that groundwater resources should be managed sustainably for long-term reliability and multiple economic, social, and environmental benefits for current and future beneficial uses. The SGMA requires local agencies to develop and implement groundwater sustainability plans in high and medium priority groundwater basins throughout California. In 2014, the California Department of Water Resources (DWR) designated the South American

² 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.

groundwater subbasin as high priority (DWR 2014). However, the South American Subbasin is not included on DWR's list of critically overdrafted basins (DWR 2016a).

Local agencies must form groundwater sustainability agencies by 2017, then agencies in critically overdrafted basins must develop plans by 2020, while agencies in all other high and medium priority basins must prepare plans by 2022. Designation of a groundwater sustainability agency is not required until 2017, and groundwater sustainability plans are not required until 2020 at the earliest.

The Sacramento Central Groundwater Authority is moving forward with SGMA compliance and submitted a notice of intent on July 21, 2016, to become a Groundwater Sustainability Agency for its area within the South American Subbasin and exclusive status was granted for the majority of that area by the California Department of Water Resources (DWR) (Sacramento Central Groundwater Authority 2016). The northern portions of the Omochumne-Hartnell Water District and the Sloughhouse Resource Conservation District overlap areas along the southern boundary of the South American Subbasin (DWR 2016b). Both water districts have submitted notices to be groundwater sustainability agencies. This process is not subject to LAFCo purview. As of May 4, 2016, two Resource Conservation Districts have submitted notice to be the groundwater sustainability agency for the South American Subbasin. (See Section 3.10, "Hydrology and Water Quality," for further discussion.)

California Integrated Waste Management Act

The California Integrated Waste Management Act (CIWMA) of 1989 is the result of two pieces of legislation, Assembly Bill (AB) 939 and SB 1322. The CIWMA 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 CIWMA 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 Sacramento 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 ~~2013~~ 2016 California Green Building Standards Code (CALGreen Code) (Title 24, Part 11 of the California Code of Regulations) became effective on January 1, ~~2014~~ 2017.³ 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 ~~2013~~ 2016).

³ ~~The CALGreen Code is currently being updated and the new code will become effective January 1, 2017.~~

Chapter 6 of the ~~2013~~ 2016 CALGreen Code describes measures to reduce indoor demand for potable water by 20 percent and to reduce landscape water usage by 50 percent. It also requires separate water meters for nonresidential buildings' indoor and outdoor water use, with a requirement for moisture-sensing irrigation systems for larger landscape projects.

Chapter 7, Section 708, of the ~~2013~~ 2016 CALGreen Code requires all construction contractors to reduce construction waste and demolition debris by 50 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 ~~2013~~ 2016 CALGreen Code requires that 100 percent of trees, stumps, rocks, and associated vegetation and soils resulting primarily from land clearing be reused or recycled.

REGIONAL AND LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

Construction and Demolition Debris Reduction, Reuse, and Recycling Ordinance

The Construction and Demolition Debris Reduction, Reuse, and Recycling Ordinance (City Municipal Code Title 30, Chapter 30.70), adopted on July 1, 2010, makes construction and demolition debris recycling mandatory for all new construction (with a valuation greater than \$250,000) and demolition projects. 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 to identify waste that would be generated by a project as well as the proposed recycling and hauling methods. During construction and/or demolition, a waste log must be maintained on the project area and submitted to the City at project completion.

Space Allocation and Enclosure Design Guidelines for Trash and Recycling

The Space Allocation and Enclosure Design Guidelines for Trash and Recycling (City Municipal Code Title 30, Chapter 30.90) provides recycling and waste collection requirements for all developments in the City. Integrated collection areas with recycling components assist in the reduction of waste materials, thereby prolonging the life of landfills and helping the City meet the State-mandated recycling requirements described previously in this subsection. The guidelines provide information and resources for designing trash and recycling sites that will be used by building occupants in new developments or significant remodels. Conventional recycling and greenwaste recycling must be designed into projects sites along with the trash capacity.

City of Elk Grove General Plan

If there is future development within the SOIA Area, this EIR assumes this development would be within the City of Elk Grove. If there is future development within the SOIA Area requiring discretionary approval from the City, this would require consistency findings with the City's General Plan, including the following policies and actions from the Public Facilities and Finance Element of the Elk Grove General Plan (2015) that relate to utilities and service systems.

- ▶ **Policy PF-1:** Except when prohibited by state law, the City shall require that sufficient capacity in all public services and facilities will be available on time to maintain desired service levels and avoid capacity shortages, traffic congestion, or other negative effects on safety and quality of life.

- ▶ **Policy PF-2:** The City shall coordinate with outside service agencies—including water and sewer providers, the Elk Grove Community Services District, and the Elk Grove Unified School District--during the review of plans and development projects.
- ▶ **Policy PF-3:** Water supply and delivery systems shall be available in time to meet the demand created by new development, or shall be assured through the use of bonds or other sureties to the City’s satisfaction.
 - **PF-3-Action 1:** The following shall be required for all development projects, excluding subdivisions:
 - An assured water supply and delivery system shall be available at the time of project approval. The water agency providing service to the project may provide several alternative methods of supply and/or delivery, provided that each is capable individually of providing water to the project.
 - All required water infrastructure for the project shall be in place at the time of project approval, or shall be assured through the use of bonds or other sureties to the City’s satisfaction. Water infrastructure may be phased to coincide with the phased development of large-scale projects.
 - **PF-3-Action 2:** The following shall be required for all subdivisions to the extent permitted by state law:
 - Proposed water supply and delivery systems shall be identified at the time of tentative map approval to the satisfaction of the City. The water agency providing service to the project may provide several alternative methods of supply and/or delivery, provided that each is capable individually of providing water to the project.
 - The agency providing water service to the subdivision shall demonstrate prior to the approval of the Final Map by the City that sufficient capacity shall be available to accommodate the subdivision plus existing development, and other approved projects in the same service area, and other projects that have received commitments for water service.
 - Offsite and onsite water infrastructure sufficient to provide adequate water to the subdivision shall be in place prior to the approval of the Final Map or their financing shall be assured to the satisfaction of the City, consistent with the requirements of the Subdivision Map Act.
 - Offsite and onsite water distribution systems required to serve the subdivision shall be in place and contain water at sufficient quantity and pressure prior to the issuance of any building permits. Model homes may be exempted from this policy as determined appropriate by the City, and subject to approval by the City.
- ▶ **Policy PF-8:** Sewage conveyance and treatment capacity shall be available in time to meet the demand created by new development, or shall be assured through the use of bonds or other sureties to the City’s satisfaction.
 - **PF-8-Action 1:** The following shall be required for all development projects, excluding subdivisions:
 - Sewer/wastewater treatment capacity shall be available at the time of project approval.

- All required sewer/wastewater infrastructure for the project shall be in place at the time of project approval, or shall be assured through the use of bonds or other sureties to the City’s satisfaction.
- **PF-8-Action 2:** The following shall be required for all subdivisions to the extent permitted by state law:
 - Sewage/wastewater treatment capacity shall be available at the time of tentative map approval.
 - The agency providing sewer service to the subdivision shall demonstrate prior to the approval of the Final Map by the City that sufficient capacity shall be available to accommodate the subdivision plus existing development, and other approved projects using the same conveyance lines, and projects which have received sewage treatment capacity commitment.
 - Onsite and offsite sewage conveyance systems required to serve the subdivision shall be in place prior to the approval of the Final Map, or their financing shall be assured to the satisfaction of the City, consistent with the requirements of the Subdivision Map Act.
 - Sewage conveyance systems within the subdivision shall be in place and connected to the sewage disposal system prior to the issuance of any building permits. Model homes may be exempted from this policy as determined appropriate by the City, and subject to approval by the City.
- ▶ **Policy PF-21:** New development shall fund its fair share portion of its impacts to all public facilities and infrastructure as provided for in state law.

3.15.3 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

METHODOLOGY

There is no development and no land use change proposed as part of this SOIA application. However, in order to facilitate environmental analysis for this SOIA request, the applicant has developed a conceptual land use scenario. For the purposes of analysis, the applicant has identified that the SOIA Area could accommodate the development of a broad array of housing types, with a total of 4,000 to 5,000 dwelling units. In addition, future land uses could include commercial, office, and industrial uses as well as public land uses, such as parks. This scenario assumes development of the SOIA Area could accommodate approximately 18,000 to 20,000 jobs.

Impacts related to utilities and service systems that would result from the proposed project were identified by comparing existing service capacity against future demand associated with implementation of the proposed project. Environmental impacts related to constructing the infrastructure to serve the future development are analyzed throughout the various environmental topic specific sections of this EIR. The placement of these utilities has been considered in the other sections of this EIR, such as Section 3.3 of this EIR, “Air Quality,” Section 3.4, “Biological Resources,” Section 3.5, “Cultural Resources,” and other sections, which specifically analyze the potential for future development. Impacts related to stormwater management are addressed in Section 3.10, “Hydrology and Water Quality.”

Evaluation of potential utility and service system impacts was based on a review of the following planning documents pertaining to the proposed project and surrounding area:

- ▶ *Elk Grove General Plan* (City of Elk Grove 2015),

- ▶ *Sacramento County Water Agency Zone 40 Water Supply Master Plan (SCWA 2005),*
- ▶ *Sacramento County Water Agency Zone 40 Water System Infrastructure Plan (SCWA 2006),*
- ▶ *2010 Zone 41 Urban Water Management Plan (SCWA 2011),*
- ▶ *Sewer System Capacity Plan 2010 Update (SASD 2011), and*
- ▶ *Sacramento Regional County Sanitation District Interceptor Sequencing Study (SRCSD 2013).*

Additional background information on current services, staffing, and equipment was obtained through consultation with appropriate agencies.

THRESHOLDS OF SIGNIFICANCE

Based on the CEQA Guidelines, Appendix G, the proposed project would result in a significant impact related to utilities and service systems if the project would:

- ▶ Exceed wastewater treatment requirements of the applicable RWQCB;
- ▶ Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- ▶ Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- ▶ Have insufficient water supplies available to serve the project from existing or permitted entitlements and resources, or require new or expanded entitlements;
- ▶ Generate solid waste beyond the capacity of existing landfills; or
- ▶ Violate federal, State, or local statutes or regulations related to solid waste.

IMPACT ANALYSIS

IMPACT 3.15-1 *Increased demand for water supplies and water system facilities. Future development would require new treated water supplies and construction of on-site and off-site water supply system facilities. SCWA would likely be the future water service provider to the SOIA Area. It is currently not known if SCWA's existing water supplies would be adequate to meet the water demands of future development. In addition, on-site and off-site water system facilities necessary to serve future development have not been identified at this time. This impact is considered **significant**.*

Presently, there are no public water supply facilities within the SOIA Area and water supplies are provided by irrigation wells. As shown in Table 3.15-1, the total annual water usage for agricultural crops on the SOIA Area is estimated to be approximately 1,830 afy. There are no changes to land uses proposed as part of this SOIA

application. Therefore, the proposed project would not immediately increase the demand for water supplies or water system facilities.

However, this EIR includes analysis of a conceptual land use scenario that is intended to represent possible development of the SOIA Area. Future development included in the conceptual land use scenario would increase demands for water supply and water system facilities. Because the SOIA Area is adjacent to the southwestern boundary of SCWA’s Zone 40, it is most likely that water service would be provided by SCWA (Exhibit 3.15-1). SCWA’s Zone 40 water-demand factors were applied to the acreage for each land use designation that generates water use within the SOIA Area. As shown on Table 3.15-4, the estimated water supply demand based on the conceptual land use scenario has been conservatively estimated as 3,233 afy.⁴ If a SRCSD recycled water program becomes available in the future, recycled water could be used for parks, landscape corridors, schools athletic fields and open space areas, which would substantially reduce potable water demand.

Land Use Category	Unit Water Demand Factors (af/ac/yr)	Land Use (acres)	Water Demand (afy)
Single-Family	2.89	430	1,243
Multifamily	4.12	90	371
Commercial ¹	2.75	380	1,045
Industrial	2.71	130	352
Public Recreation ²	3.46	140	484
Subtotal	--	1,156	3,495
Water System Losses (7.5%)	--	--	262
Total Demand	--	--	3,233

Notes: af/ac/yr = acre-feet per acre per year; afy = acre-feet per year.
¹ Future commercial and office development is included in the Commercial land use category.
² Future schools and parks/open space are included in the Public Recreation land use category.
Source: SCWA 2005a:2-5

As discussed above, the Zone 41 UWMP indicates that water supplies and demands within SCWA Zone 40 would be the same during normal, single-dry, and multiple-dry years; however, the year-to-year mix of surface and groundwater would be adjusted, as necessary, to meet the demands as part of its conjunctive use water supply program. As shown in Table 3.15-2, SCWA would have surface water and groundwater supplies that exceed demands within Zone 40 from 2010 to 2035 in all water years. ~~Surplus water supplies could potentially meet water supply demands of future development.~~ SCWA anticipates that at buildout of its service area, and assuming that appropriate water and CVP contract water continue to be available, surface water will account for approximately 70 percent of water supplies during average and wet years and account for approximately 30 percent of water supplies in the driest years thereby resulting in a long-term average of approximately 60 percent of water demands being met by surface water supplies (SCWA 2017).

The City outlines specific requirements to ensure water systems are available to meet demands created by new development (Policy PF-3 of the City General Plan). These requirements include demonstrating that on-site and off-site water systems are available to serve proposed development (Action PF-3-Action 1 and PF-3-Action 2 of the City General Plan) or that new development would contribute its fair share portion for funding new water

⁴ This water supply demand does not reflect 2016 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.

systems (Policy PF-21 of the City General Plan). In addition, the City requires assured water supplies are available prior to approval of new development projects (Policy PF-3, Action PF-3-Action 1, and PF-3-Action 2 of the City's General Plan).

Although the City of Elk Grove has recently committed advance funding of major infrastructure improvements along its southern boundary (i.e., water transmission mains to be in Kammerer Road), the current SCWA existing and proposed facilities for serving this Elk Grove area were not planned or designed to serve beyond the existing Elk Grove city limits. However, existing SCWA off-site water storage and conveyance facilities in the vicinity of the SOIA Area could serve future development. SWCA's nearest water transmission mains are located in Promenade Parkway and Kammerer Road adjacent to the northern boundary of this SOIA area and along Bilby Road, approximately 0.5 mile northwest of the SOIA Area; at West Stockton Boulevard, adjacent to the eastern edge of the SOIA Area; and at the Grant Line Road/State Route 99 interchange, approximately 0.5 mile east of the eastern edge of the SOIA Area (LAFCo 2013). The Poppy Ridge WTP is located near the intersection of Bruceville Road and Poppy Ridge Road. SCWA would need to assess the available capacity in these water system facilities if there is proposed annexation and proposed development within the SOIA Area in the future.

Other planned SCWA water system improvements may also serve future development. The Zone 40 WSIP shows the future Whitelock WTP, planned as a Phase 2 facility in The Zone 40 WSMP, and additional water conveyance pipelines are proposed along Whitelock Parkway, approximately 1.5 miles north of the SOIA Area (SCWA 2006). These water system improvements were identified in the 2005 Zone 40 WSMP EIR, and the environmental impacts of the construction and operation were analyzed at a programmatic level. ~~SCWA would conduct project-level CEQA or NEPA analysis, if necessary, to analyze specific impacts and identify any required mitigation measures for construction and operation of new off-site facilities.~~

~~Future development would require construction of an on-site water system to serve new development and construction of new or improvements to off-site SCWA water systems. ~~On-site water systems would be constructed to serve new development.~~ SCWA has indicated on-site and off-site water systems could consist of a groundwater treatment plant, storage tanks, pump stations, groundwater wells, and transmission and distribution mains (SCWA 2017). Physical impacts associated with construction and operations of on-site utilities are evaluated throughout this Recirculated Draft EIR and the Draft EIR since these facilities are considered to be part of potential future development consistent with the proposed project. ~~These resource sections, such as include. The placement of these utilities has been considered in the other sections of this EIR, such as Air Quality, Biological Resources, and other sections, which specifically analyze the potential for project construction and implementation.~~~~

SCWA would conduct project-level CEQA or NEPA analysis, if necessary, to analyze specific impacts and identify any required mitigation measures for construction and operation of new off-site facilities. Impacts resulting from off-site water conveyance infrastructure improvements could include, but are not limited to, short-term impacts on air quality and greenhouse gas emissions associated with construction, potential impacts on special-status plants and wildlife or sensitive habitats; potential disturbance of known or unknown cultural or paleontological resources; short-term increases in erosion and stormwater runoff; and short-term increases in construction noise levels. The size and number of new on-site and off-site facilities would be determined by SCWA based on water supply demands of the SOIA Area. The existing Zone 40 WSMP would be updated or amended to include these new facilities and an estimate of infrastructure costs (SCWA 2017).

The SOIA Area is not within SCWA's Zone 40 2030 Study Area and water supply demands to the SOIA Area were not accounted for in the Zone 41 UWMP or Zone 40 WSMP. It is currently not known if SCWA's existing water supplies would be adequate to meet the water demands of future development but SCWA has indicated that it is likely additional surface water and groundwater supplies will be procured to meet the water supply demands of the SOIA Area (SCWA 2017).

SCWA would need annex the SOIA Area into ~~its service area~~ Zone 40 and Zone 41 and plan and extend infrastructure and services to serve the SOIA Area. SCWA is not subject to LAFCo purview and the SCWA Board of Supervisors would oversee any changes to the SCWA service area. SCWA would need to conduct future water supply assessments to determine if existing water supplies would meet the demand of future development and the Zone 41 UWMP would be updated to include water supply demands of the SOIA Area. SCWA will require the updating or amending of its existing Zone 40 WSMP in conjunction with the water supply assessments. SCWA would update or amend the existing Zone 40 WSIP to include details on calculations and infrastructure requirements added to the amended Zone 40 WSMP (SCWA 2017). In addition, on-site and off-site water supply facilities necessary to serve future development have not been identified at this time. Therefore, the impact is considered **significant**.

Mitigation Measures

Mitigation Measure 3.15-1: Prepare a Plan for Service that Demonstrates Adequate Water Supplies and On-Site and Off-Site Water System Facilities are Available before the Annexation of Territory within the SOIA Area.

At the time of submittal of any application to annex territory within the SOIA Area, the City of Elk Grove shall prepare a Plan for Services as required by Government Code Section 56430, or its successor. The Plan for Services shall demonstrate that SCWA water supplies are adequate to serve the amount of future development identified in the annexation territory in addition to existing and planned development under normal, single dry, and multiple dry years, without adverse impacts to existing ratepayers. The Plan for Services shall demonstrate that the SCWA is a signatory to the Water Forum Agreement, that groundwater management would occur consistent with the Central Sacramento County Groundwater Management Plan, and that groundwater will be provided in a manner that ensures no overdraft will occur. The Plan for Services shall depict the locations and appropriate sizes of all on-site water system facilities to accommodate the amount of development identified for the annexation territory, demonstrate SCWA has modified its service area boundary to include ~~annexed~~ ~~the territory into~~ within its Zone 40 and Zone 41 service areas, and demonstrate adequate SCWA off-site water facilities are available to accommodate the amount of development identified in the annexation territory or that fair share funding will be provided for the construction of new or expansion and/or improvement of existing off-site water system facilities with no adverse impacts on existing ratepayers.

Significance after Mitigation

Implementation of Mitigation Measure 3.15-1 would reduce significant impacts associated with increased for water supplies and demand for on-site and off-site water facilities because the City of Elk Grove would demonstrate adequate SCWA water supplies and on-site and off-site water systems would be available for the amount of development identified in the annexation territory.

LAFCo would condition future annexation on compliance with Mitigation Measure 3.15-1. However, SCWA's water supply planning and off-site improvements to their facilities are the responsibility of SCWA. SCWA would conduct project-level CEQA or NEPA analysis, if necessary, to analyze specific impacts and identify any required mitigation measures for construction and operation of new off-site facilities. Impacts resulting from off-site water infrastructure improvements could include, but are not limited to, short-term impacts on air quality and greenhouse gas emissions associated with construction, potential impacts on special-status plants and wildlife or sensitive habitats; potential disturbance of known or unknown cultural or paleontological resources; short-term increases in erosion and stormwater runoff; and short-term increases in construction noise levels.

Implementation of mitigation measures and updates or amendments to the Zone 40 WSMP, Zone 40 WSIP, and Zone 41 UWMP would be the responsibility of the SCWA. In addition, physical environmental impacts from construction or operation of new off-site improvements could remain significant after implementation of mitigation (i.e., significant and unavoidable), or no feasible mitigation may be available to fully reduce impacts to a less-than-significant level. Neither LAFCo nor the City of Elk Grove would have control over SCWA's future water supply planning or the approval, timing, or construction of any SCWA off-site water facility improvements. There is no additional feasible mitigation. Therefore, the impact remains **significant and unavoidable**.

IMPACT 3.15-2 **Increased demand for wastewater collection, conveyance, and treatment facilities.** *Future development would require construction of on-site wastewater collection and conveyance facilities and construction of new and/or expansion of existing SASD and SRCSD facilities. The on-site wastewater collection and conveyance facilities necessary to serve future development are not known at this time, but could include gravity sewers, force mains, and pump stations. SASD has not identified future off-site wastewater collection and conveyance facilities required to serve future development and the SRCSD South Area Interceptor has been conceptually identified but not constructed. Although the SRWTP would have capacity to treat wastewater generated by future development, verification of SRWTP treatment capacity to serve future development would still be required. Therefore, this is considered a **significant** impact.*

Physical impacts associated with construction and operations of utilities are evaluated throughout this EIR. The placement of these utilities has been considered in the other sections of this EIR, such as Air Quality, Biological Resources, and other sections, which specifically analyze the potential for project construction and implementation.

The SOIA Area is not currently served by a municipal wastewater service provider. Rather, wastewater service is currently provided by septic systems. Future development would receive municipal wastewater service through construction of on-site wastewater transmission facilities and construction of new and/or expansion of existing off-site SASD and SRCSD infrastructure. The SOIA Area is not within the SASD or SRCSD service areas. As part of this project, both providers would annex the SOIA Area into their respective service area, which would not be subject to LAFCo purview. In general, development projects are required to design and build project-specific infrastructure, sized appropriately for anticipated demand.

On-site wastewater collection and conveyance facilities could consist of gravity sewers, force mains, and pump stations. Given the relatively flat terrain in this area, a series of pump stations will be required to collect wastewater flows from future development and convey flows via a twin 12-inch diameter force mains from the SOIA Area to a point of connection with SASD off-site infrastructure. The City outlines specific requirements to ensure wastewater facilities are available to meet demands created by new development (Policy PF-8 of the

General Plan). These requirements include demonstrating on-site and off-site wastewater infrastructure provides sufficient capacity to serve proposed development (Action PF-8-Action 1 and PF-8-Action 2 of the City General Plan).

The SASD has indicated that may provide sewer service to the SOIA Area (Moore, pers. comm., 2016). However, the locations of these improvements to serve the SOIA Area have not been identified in SASD's most recent sewer system capacity study prepared in 2010 (Exhibit 3.15-3).

Although the SOIA Area is not currently within the SRCSD service area, off-site wastewater infrastructure has been planned for in the SRCSD Interceptor Sequencing Study. The Interceptor Sequencing Study identifies the SOIA Area as the South Area that would be served by the future South Area Interceptor (Exhibit 3.15-3). There is currently no timeframe for construction of the South Area Interceptor. However, SRCSD staff has stated that future sewer service to the South Area cannot be planned until annexation into SRCSD has occurred (LAFCo 2013).

SASD bases wastewater generation rates early master planning estimates on 6 ESD's (equivalent single-family dwellings) per gross acre within the planning area. Based on this estimate, the 1,156-acre project site would generate 2.15 mgd average dry-weather flow and 5.1 mgd peak wet-weather flow that would be conveyed to the SRWTP via the South Area Interceptor. The SRWTP has a design capacity of 181 mgd with the potential to expand to 218 mgd. As of 2015, the SRWTP receives and treats an average of 150 mgd each day. The SRCSD expects that substantial water conservation measures throughout the service area would allow the existing 181 mgd average dry-weather flow capacity to be adequate for at least 40 more years (SRCSD 2014:6-2). Therefore, the SRWTP would have adequate capacity to treat wastewater flows generated by future development. The on-site wastewater collection and conveyance facilities necessary to serve future development are not known at this time, but could include gravity sewers, force mains, and pump stations. SASD has not identified future off-site wastewater collection and conveyance facilities required to serve future development and the SRCSD South Area Interceptor has been conceptually identified but not constructed. Although it is likely that the SRWTP would have capacity to treat wastewater generated by future development, verification of SRWTP treatment capacity to serve future development would still be required. Therefore, this is considered a **significant** impact.

Mitigation Measures

Mitigation Measure 3.15-2: Prepare a Plan for Service that Demonstrates Adequate On-Site and Off-Site Wastewater Collection and Conveyance Facilities and Wastewater Treatment Facilities are Available before the Annexation of Territory within the SOIA Area.

At the time of submittal of any application to annex territory within the SOIA Area, the City of Elk Grove shall provide a Plan for Services that depicts the locations and appropriate sizes of wastewater collection and conveyance facilities to accommodate the amount of development identified for the annexation territory. The Plan for Services shall demonstrate SRCSD and SRCSD have annexed the territory into their respective service areas. The Plan for Services shall demonstrate that SRCSD and SRCSD wastewater collection and conveyance facilities and that the SRWTP will have sufficient capacity to accommodate the amount of development identified for the annexation territory or that fair-share funding will be provided for the expansion and/or improvement of existing wastewater facilities, as needed, to accommodate the increase in demand resulting from development of the annexation territory with no adverse impact to existing ratepayers.

Significance after Mitigation

Implementation of Mitigation Measure 3.15-2 would reduce significant impacts because the City of Elk Grove would demonstrate adequate on-site and off-site wastewater collection, conveyance, and treatment facilities would be available for the amount of development identified in the annexation territory. LAFCo would condition future annexation on compliance with Mitigation Measure 3.15-2. Off-site improvements to SASD and SRCSD wastewater facilities are the responsibility of SASD and SRCSD. Implementation of mitigation measures would be the responsibility of the SASD and SRCSD, and such measures would be implemented in accordance with the certified CEQA documents. However, physical environmental impacts from construction or operation of off-site improvements could remain significant after implementation of mitigation (i.e., significant and unavoidable), or no feasible mitigation may be available to fully reduce impacts to a less-than-significant level. Neither LAFCo nor the City of Elk Grove would have control over the approval, timing, or implementation any SASD and SRCSD wastewater facility improvements. Therefore, the impact remains **significant and unavoidable**.

IMPACT 3.15-3 **Increased generation of solid waste and compliance with solid waste regulations.** *Future development would result in the increase generation of solid waste. The Kiefer Landfill, L and D Landfill, and Yolo County Landfill have sufficient permitted capacity to accommodate solid-waste disposal needs of future development would be required to comply with applicable federal, State, or local solid waste regulations. This impact is considered than less than significant.*

Construction of future development could 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 ~~2013~~ 2016 CALGreen Code (Title 24, Part 11 of the California Code of Regulations) requires all construction contractors to reduce construction waste and demolition debris by 50 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 ~~2013~~ 2016). In addition, the 2013 CALGreen Code requires that 100 percent of trees, stumps, rocks, and associated vegetation and soils resulting primarily from land clearing be reused or recycled.

Future development would result in increased long-term generation of solid waste during operation. The City provides recycling programs, such as curbside recycling of paper, plastics, and bottles, to reduce the volume of solid waste transported to landfills. In addition, the Space Allocation and Enclosure Design Guidelines for Trash and Recycling (City Municipal Code Title 30, Chapter 30.90) reduces wastes further by requiring businesses and multi-family residential uses to provide integrated collection areas with recycling components.

Residential solid waste in the City of Elk Grove is disposed of at the Kiefer Landfill and commercial solid waste is primarily disposed of at the Kiefer Landfill, the L and D Landfill, and the Yolo County Landfill. The residential uses on the SOIA Area could generate approximately 17.6 to 21.9 tpd of solid waste.⁵ Future development of

⁵ Based on CalRecycle's estimated 2014 annual per capita disposal rate of 2.7 pounds per resident per day, the estimated total population for the proposed project (13,000 to 16,250 persons) would generate approximately 35,100 to 43,875 pounds per day of solid waste, which equates to 17.6 to 21.9 tpd (CalRecycle 2014).

commercial, office, and industrial uses could generate approximately 127.8 to 142.0 tpd of solid waste.⁶ Combined, these landfills have a large volume of landfill capacity (254 million cubic yards) available to serve future development. The closure dates of the Kiefer Landfill, L and D Landfill, and Yolo County Central Landfill are anticipated to be approximately January 1, 2064, January 1, 2023, and January 1, 2080, respectively.

Future development would comply with all statues and regulations related to solid waste. Compliance with the CalGreen Code; the City's the Construction and Demolition Debris Reduction, Reuse, and Recycling Ordinance; Space Allocation and Enclosure Design Guidelines; and other City recycling programs would ensure that sufficient landfill capacity would be available to accommodate solid-waste disposal needs for future development. This impact is considered **less than significant**.

Mitigation Measures

No mitigation measures are required.

⁶ Based on CalRecycle's estimated 2014 annual per capita disposal rate of 14.2 pounds per employee per day and an estimated 18,000 to 20,000 employees for the proposed project, approximately 255,600 to 284,000 pounds per day of solid waste would be generated per day, which equates to 127.8 to 142.0 tpd (CalRecycle 2014).