

3.14 UTILITIES AND SERVICE SYSTEMS

This section describes current conditions relative to utilities and service systems in Elk Grove. It also includes a description of capacities, analysis of environmental impacts, and recommendations for mitigation measures for any significant or potentially significant impacts that could result from implementation of the Housing Element and Safety Element Update (Project). The primary source of information used for this analysis is the *City of Elk Grove General Plan Update Draft Environmental Impact Report* (City of Elk Grove 2018).

The Sacramento Metropolitan Utility District (SMUD) submitted a comment in response to the notice of preparation (NOP), requesting that individual development projects undertaken as part of the Housing Element Update address specific information such as transmission and distribution line easements, utility line routing, energy efficiency, and climate change. This SEIR is a programmatic document; thus, specific information related to subsequent projects under the Housing Element and Safety Element Update is not known and cannot be known at this time and is not discussed further in this EIR.

Another comment letter received in response to the NOP requested that the EIR include the groundwater sustainability plan when evaluating water availability. Section 3.9, "Hydrology and Water Quality," of this SEIR includes discussion of California's groundwater management requirements, local groundwater management programs, and existing groundwater hydrology and quality. Impact 3.9-3 in this SEIR evaluates whether the Project would substantially decrease groundwater supplies or impede sustainable groundwater management. This section of the SEIR includes discussion of the various water sources that supply the City and Impact 3.14-1 evaluates whether there would be sufficient water supply to meet Project demand.

3.14.1 Regulatory Setting

WATER

Federal

Safe Drinking Water Act

As mandated by the Safe Drinking Water Act (Public Law 93-523), passed in 1974, the U.S. Environmental Protection Agency (EPA) regulates contaminants of concern to domestic water supply. Such contaminants are defined as those that pose a public health threat or that alter the aesthetic acceptability of the water. These types of contaminants are regulated by EPA primary and secondary Maximum Contaminant Levels (MCLs). MCLs and the process for setting these standards are reviewed every three years. Amendments to the Safe Drinking Water Act enacted in 1986 established an accelerated schedule for setting drinking water MCLs. EPA has delegated responsibility for California's drinking water program to the State Water Resources Control Board Division of Drinking Water (SWRCB-DDW). SWRCB-DDW is accountable to EPA for program implementation and for adoption of standards and regulations that are at least as stringent as those developed by EPA.

State

Urban Water Management Plan

In 1983, the California Legislature enacted the Urban Water Management Planning Act (UWMPA) (California Water Code Sections 10610–10656). The UWMPA states that every urban water supplier that provides water to 3,000 or more customers, or that provides more than 3,000 acre-feet (af) of water annually, should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. This effort includes the adoption of an urban water management plan (UWMP) by every urban water supplier and an update of the plan every 5 years on or before December 31 of every year ending in a five or zero. The UWMPA has been amended several times since 1983, with the most recent

amendment occurring with SB 318 in 2004. With the passage of SB 610 in 2001, additional information is required to be included as part of an urban water management plan if groundwater is identified as a source of water available to the supplier. An urban water supplier is required to include in the plan a description of all water supply projects and programs that may be undertaken to meet total projected water use. The UWMPA and SB 610 are interrelated; the UWMP is typically relied upon to meet the requirements of SB 610.

California Safe Drinking Water Act

The SWRCB-DDW is responsible for implementing the federal SDWA and its updates, as well as California statutes and regulations related to drinking water. State primary and secondary drinking-water standards are promulgated in California Code of Regulations (CCR) Title 22, Sections 64431–64501.

The California Safe Drinking Water Act (CA SDWA) was passed in 1976 to build on and strengthen the federal SDWA. The CA SDWA authorizes DHS to protect the public from contaminants in drinking water by establishing maximum contaminant levels (MCLs) that are at least as stringent as those developed by EPA, as required by the federal SDWA.

NPDES Permit for the Sacramento Regional Water Treatment Plant

The quality of the effluent that can be discharged to waterways in the Sacramento area by the Sacramento Regional Wastewater Treatment Plant (SRWTP) is established by the Central Valley RWQCB through waste discharge requirements (WDRs) that implement the NPDES permit. WDRs are updated at least every 5 years. A new permit must be issued in the event of a major change or expansion of the facility. In April 2016, the Central Valley RWQCB issued Order No. R5-2016-0020, NPDES No. CA 0077682, to Regional San for its Sacramento Regional Wastewater Treatment Plant (SRWTP), which treats wastewater from its service area before discharging the treated effluent to the Sacramento River. The water quality objectives established in the Central Valley RWQCB Basin Plan are protected, in part, by Order No. R5-2016-0020, NPDES No. CA 0077682. Currently, the SRWTP is permitted for a discharge of up to 181 million gallons per day (mgd) of treated effluent to the Sacramento River.

NPDES Permit for the Combined Sewer System

In April 2015, the Central Valley RWQCB issued WDR Order No. R5-2015-0045 (NPDES No. CA 0079111) to the City of Sacramento for its Combined Wastewater Collection and Treatment System. The system was previously regulated by Order R5-2010-0004, which expired on January 1, 2010. Depending on flow volumes, wastewater and stormwater flows in this system are conveyed to the SRWWTP, Combined Wastewater Treatment Plant (CWTP) at South Land Park Drive and 35th Avenue, and Pioneer Reservoir at Front and V streets near the Sacramento River. The Order does not apply to operations at SRWWTP.

This Order implements the U.S. EPA Combined Sewer Overflow (CSO) Control Policy, which establishes a consistent national approach for controlling discharges from CSOs to the nation's water through the NPDES permit program. This policy requires implementation of a long-term control plan (LTCP) to comply with water quality-based requirements of the CWA. The City of Sacramento adopted their LTCP, also known as the Combined Sewer System Improvement Plan (CSSIP), in 1995, which contained the infrastructure improvement portion of the LTCP.

WDR Order No. R5-2015-0045 identifies effluent limitations and discharge specifications for discharges from the CWTP and Pioneer Reservoir to the Sacramento River. Discharge from the system to surface waters or surface water drainage courses is prohibited during non-storm events. However, in the event that the capacity of the system is exceeded during a storm event, this Order allows for the discharge of overflows into the Sacramento River. The City is required to implement pollution prevention programs to reduce contaminants in CSOs.

California Integrated Waste Management Act

The California Integrated Waste Management Act of 1989 (AB 939) required all California cities and counties to reduce the volume of waste deposited in landfills by 50 percent by the year 2000, and requires all California cities and counties to continue to remain at 50 percent or higher for each subsequent year. The purpose of AB 939 is to reduce the amount of solid waste generated and extend the life of landfills.

AB 939 requires each California city and county to prepare, adopt, and submit to California Department of Resources Recycling and Recovery (CalRecycle) a source reduction and recycling element (SRRE) that demonstrates how the jurisdiction will meet the act's mandated diversion goals. Each jurisdiction's SRRE must include specific components defined in PRC Sections 41003 and 41303. In addition, the SRRE must include a program for management of solid waste generated within the jurisdiction that is consistent with the following hierarchy: (1) source reduction, (2) recycling and composting, and (3) environmentally safe transformation and land disposal. Included in this hierarchy is the requirement to emphasize and maximize the use of all feasible source reduction, recycling, and composting options in order to reduce the amount of solid waste that must be disposed of by transformation and land disposal (PRC Sections 40051, 41002, and 41302).

CalRecycle Model Ordinance

Subsequent to the Integrated Waste Management Act, additional legislation was passed to assist local jurisdictions in accomplishing the goals of AB 939. The California Solid Waste Re-use and Recycling Access Act of 1991 (SB 1327) (PRC Sections 42900–42911) required CalRecycle to approve a model ordinance for adoption by any local government for the transfer, receipt, storage, and loading of recyclable materials in development projects by March 1, 1993. The act also required local agencies to adopt a local ordinance by September 1, 1993, or to allow the model ordinance to take effect.

LOCAL

Sacramento Regional County Sanitation District

Sacramento Regional Wastewater Treatment Plant 2020 Master Plan

The SRWTP 2020 Master Plan provides a phased program of recommended wastewater treatment facilities and management programs to accommodate planned growth and to meet existing and anticipated regulatory requirements through the year 2020. The Master Plan addresses both public health and environmental protection issues while ensuring reliable service at affordable rates for Regional San customers. The Master Plan's key goals are to provide sufficient capacity to meet growth projections and an orderly expansion of SRWTP facilities, to comply with applicable water quality standards, and to provide for the most cost-effective facilities and programs from a watershed perspective (Regional San 2008).

Regional Interceptor Master Plan 2000

Regional San has prepared a long-range master plan for the large-diameter interceptors that transport wastewater to the SRWTP, which includes interceptor upgrades/expansions to accommodate anticipated growth through 2035 (Regional San 2000).

City of Elk Grove Source Reduction and Recycling Element

In response to AB 939, the City prepared an SSRE that includes policies and programs that will be implemented by the City to achieve the State waste reduction mandates. As required by AB 939, the SRRE must project the amount of disposal capacity needed to accommodate the waste generated within the City for a 15-year period. In addition, the jurisdictional mandated goal is 50 percent diversion, with diversion meaning source reduction, recycling, composting, and related activities.

Space Allocation and Enclosure Design Guidelines for Trash and Recycling

Municipal Code Chapter 30.90, Space Allocation and Enclosure Design Guidelines for Trash and Recycling, provides recycling and waste collection requirements for all development in the City. Integrated collection areas with recycling components assist in the reduction of waste materials, thereby prolonging the life of landfills and promoting environmentally sound practices, and help the City meet the State-mandated recycling requirements described previously in this subsection.

The guidelines include 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 green waste recycling must be designed into the site along with the trash capacity. The California Solid Waste Reuse and Recycling Access Act of 1991 requires new commercial and multifamily developments of five units or more, or improvements that add 30 percent or more to the existing floor area, to include adequate, accessible, and convenient areas for collecting and loading recyclable materials.

Construction and Demolition Debris Reduction, Reuse, and Recycling

Municipal Code Chapter 30.70, Construction and Demolition Debris Reduction, Reuse, and Recycling, makes construction and demolition debris recycling mandatory for all new construction (with a valuation greater than \$200,000) 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.

Commercial Refuse Hauler Fee

Municipal Code Chapter 30.50, Nonresidential Haulers, provides information relating to the setting, charging, collecting, and enforcement of nonresidential refuse hauler fees, as well as establishing registration requirements stating that all nonresidential waste haulers operating, conducting business, or providing solid waste services must register with the City and receive a registration decal to operate and remit an amount based on their diversion performance.

City of Elk Grove General Plan

The following policies and standards are applicable to the Project.

- ▶ **Policy INF-1-1:** Water supply and delivery systems shall be available in time to meet the demand created by new development.
 - **Standard INF-1-1.a:** The following shall be required for all subdivisions to the extent permitted by State law:
 - Proposed water supply and delivery systems shall be available at the time of tentative map approval to the satisfaction of the City. The water agency providing service to the project may use several alternative methods of supply and/or delivery, provided that each is capable individually of delivering water to the project.
 - The agency providing water service to the subdivision shall demonstrate prior to the City's approval of the Final Map 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.
 - Off-site and on-site 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.
 - Off-site and on-site 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 INF-1-3:** Establish and expand recycled water infrastructure for residential, commercial, industrial, and recreational facilities and support the use of reclaimed water for irrigation wherever feasible.
- ▶ **Policy IFP-1-7:** New development shall fund its fair share portion of impacts to all public facilities and infrastructure as provided for in State law.
- ▶ **Policy IFP-1-8:** Infrastructure improvements must be financed and constructed concurrent with or prior to completion of new development.

- **Standard IFP-1-8.a:** Establish concurrency measures to ensure infrastructure adequately serves future development:
 - Coordinate public facility and service capacity with the demands of new development.
 - Require that the provision of public facilities and service to new development does not cause a reduction in established service levels for existing residents.
 - Ensure that new infrastructure will meet the required level of service standards set by the City's General Plan and Municipal Code.
- **Standard IFP-1-8.b:** Phase new development in expansion areas to occur where public services and infrastructure exist or may be extended to serve the public interest with minimal impact.
- ▶ **Policy NR-3-4:** Ensure adequate water supply is available to the community by working with water providers on facilities, infrastructure, and appropriate allocation.
- ▶ **Policy NR-3-5:** Continue to coordinate with public and private water users, including users of private wells, to maintain and implement a comprehensive groundwater management plan.
- ▶ **Policy NR-3-6:** Continue interagency partnerships to support water conservation.
- ▶ **Policy NR-3-7:** Continue to eliminate water use inefficiencies and maintain ongoing communication with water suppliers to ensure sustainable supply.
- ▶ **Policy NR-3-8:** Reduce the amount of water used by residential and nonresidential uses by requiring compliance with adopted water conservation measures.
- ▶ **Policy NR-3-9:** Promote the use of greywater systems and recycled water for irrigation purposes.
- ▶ **Policy NR-3-10:** Improve the efficiency of water use at City facilities through retrofits and employee education.
- ▶ **Policy NR-3-11:** Promote upgrades to existing buildings to support water conservation.
- ▶ **Policy NR-3-12:** Advocate for native and/or drought-tolerant landscaping in public and private projects.
 - **Standard NR-3-12.a:** Require the planting of native and/or drought-tolerant landscaping in landscaped medians and parkway strips to reduce water use and maintenance costs.
- ▶ **Policy ER-6-6:** Work with the Sacramento County Water Agency and water utilities to support programs and conservation activities intended to help water customers voluntarily conserve approximately 10 percent over time.
- ▶ **Policy ER-6-7:** Enforce the City's water-efficient landscape ordinance that is as strict or stricter than the State Water Resources Control Board regulations affecting local water agencies, and ensure future state updates are incorporated in some form to the City's ordinance. Provide opportunity for and encourage public reporting of violations.
- ▶ **Policy INF-2-1:** 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.
 - **Standard INF-2-1.a:** 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.
 - **Standard INF-2-1.b:** The following shall be required for all subdivisions to the extent permitted by State law:
 - Sewer/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 City's approval of the Final Map 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 commitments.

- On-site and off-site 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 in 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 CIF-1-1:** Facilitate recycling, reduction in the amount of waste, and reuse of materials to reduce the amount of solid waste sent to landfill from Elk Grove.
 - ▶ **Policy CIF-1-2:** Reduce municipal waste through recycling programs and employee education.
 - **Standard CIF-1-2.a:** Recycle waste materials for all municipal construction and demolition projects.

City of Elk Grove Municipal Code

Municipal Code Chapter 14.10: Water Efficient Landscape Requirements

Municipal Code Chapter 14.10 identifies water management practices and water waste prevention for existing landscapes. It specifies requirements for planning, designing, installing, maintaining, and managing water efficient landscapes in new construction and rehabilitated projects.

Municipal Code Title 30: Solid Waste Management

Municipal Code Chapter 30.50 identifies requirements for commercial hauling such as required qualifications, vehicle specifications, and transportation specifications. Chapter 30.70 identifies requirements related to debris reduction, reuse, and recycling for new construction and demolition projects in the City. Specifically, Chapter 30.70 identifies requirements to recycle or divert no less than 65 percent of construction material and complete a waste management plan. Chapter 30.90 identifies space allocation and enclosure design guidelines for trash and recycling. For example, guidelines are provided for location and dimension of commercial trash and recycling enclosures.

3.14.2 Environmental Setting

WATER SUPPLY

This subsection provides information on water supplies that would be used by and may be available to the new units associated with the Housing Element Update. The Safety Element Update involves updated language and information regarding evacuation routes, and would not require any water supply for implementation. This subsection also discusses the availability and adequacy of existing and planned water treatment and conveyance infrastructure.

There are three water service providers in the Elk Grove Planning Area: Sacramento County Water Agency (SCWA); Elk Grove Water District (EGWD), which is a department of the Florin Resource Conservation District; and Omochumne-Hartnell Water District (OHWD). The SCWA is both a retail urban water supplier and a wholesale water supplier; it provides retail water supply to the City, as well as portions of unincorporated Sacramento County and the City of Rancho Cordova. The EGWD serves an area of approximately 13 square miles in the City limits east of SR 99. Part of its supply is water purchased from the SCWA.

Sacramento County Water Agency

The SCWA manages water supplies in Sacramento County, and boundaries of the SCWA are identical to the county boundaries. Water supplies consist of surface water, groundwater, recycled water, and purchased water. As authorized by the Sacramento County Water Agency Act in 1952, the agency may contract with the federal

government and the State of California with respect to the purchase, sale, and acquisition of water. The service area is divided into eight systems, the largest of which are the Mather Sunrise and Laguna Vineyard systems. The City, within City limits, is in the Laguna Vineyard system.

The SCWA constructs and operates water supply infrastructure as well as some drainage systems. Zones have been approved by the Sacramento County Board of Supervisors to “finance, construct, acquire, reconstruct, maintain, operate, extend, repair, or otherwise improve any work or improvement of common benefit to such zone.” (SCWA 2018) There are eight water and drainage zones, some of which are for drainage and long-range planning for water resources development. Other zones are specifically for planning, design, and construction of major water supply facilities that benefit the zone. Each zone encompasses a unique geographic area of benefit to achieve the desired objectives. Funding derived from a zone can only be used to benefit that zone.

Zone 40 comprises the Mather Sunrise and Laguna Vineyard potable water system service areas. The southern boundary of the Zone 40 service area is Kammerer Road, and the eastern boundary is the Cosumnes River, which also coincides with the boundaries of Zone 40. The western boundary is Interstate 5, and the northern boundary is irregularly shaped, extending through unincorporated Sacramento County from the Florin area northeast to the City of Rancho Cordova. A portion of the City not served by the EGWD is located in SCWA Zone 40.

Zone 40 is divided into three service areas (north, central, and south). The Laguna Vineyard water system consists of the central service area (CSA) and the south service area (SSA). The City limits are in the CSA and SSA. The CSA is east of SR 99 and is supplied by surface water from the Vineyard Surface Water Treatment Plant (SWTP) and groundwater. The EGWD, also in the CSA, is between the wholesale area and SR 99. The SSA is west of SR 99 and is supplied by a mix of surface water, groundwater, and recycled water. Both the CSA and SSA are predominantly residential.

Water Supplies

The SCWA uses purchased water, surface water, groundwater, and recycled water as sources of water supply. The California Department of Water Resources (DWR) defines purchased water as water purchased from other suppliers, including non-self-supplied surface water. Surface water is defined as self-supplied water that is drawn from streams, lakes, and reservoirs. Table 3.14-1 lists the SCWA’s water supplies and amounts delivered in 2015. There is not a specific actual delivery identified for portions of the City served by Zone 40 supply.

Table 3.14-1 SCWA Water Supplies and 2015 Deliveries

Water Supply	Additional Detail on Water Supply	2015		
		Volume Delivered	Water Quality	Total Right or Safe Yield
Retail Water Supplies – Actual (AFY)				
Purchased or imported water	CVP water	115	Drinking water	45,000
Surface water	Appropriative water	2,125	Drinking water	71,000
Groundwater		21,963	Drinking water	1
Groundwater	Remediated groundwater	4,176	Drinking water	8,900
Transfers	Other surface water supplies	0	Drinking water	9,600
Recycled water	Regional San	575	Recycled water	1,700
Raw water		170	Raw water	—
Other	Supply for SW Tract	25	Drinking water	—
Subtotal Retail		29,149		136,200

Water Supply	Additional Detail on Water Supply	2015		
		Volume Delivered	Water Quality	Total Right or Safe Yield
Wholesale Water Supplies – Actual (AFY)				
Purchased or imported water	CVP water	0	Drinking water	0
Surface water	Appropriative water	0	Drinking water	0
Groundwater		2,689	Drinking water	
Groundwater	Remediated groundwater	0	Drinking water	0
Transfers	Other surface water supplies	0	Recycled water	0
Recycled water		0	Drinking water	0
Subtotal Wholesale		2,689		
Total		31,838		136,200

¹ UWMP assumes wholesale water is supplied by groundwater.

Source: SCWA 2016a: Tables 6-10, 6-11 Safe yield not determined

Purchased Water

The SCWA has two sources of purchased water: the Central Valley Project (CVP) and the City of Sacramento’s American River Place of Use (POU) Supply.

Central Valley Project Water

CVP water consists of the following:

- ▶ SMUD 1 Assignment – 15,000 acre-feet per year (AFY) of Sacramento Municipal Utility District’s (SMUD) CVP contract water has been assigned to the SCWA under the terms of an agreement with SMUD.
- ▶ SMUD 2 Assignment – 15,000 AFY of SMUD’s CVP contract water has been assigned to the SCWA under the terms of an agreement with SMUD.
- ▶ CVP Water Public Law 101-514 (“Fazio” Water) – The SCWA has entered into a contract with the US Bureau of Reclamation for 22,000 AFY. Of this total, 7,000 AFY has been subcontracted to the City of Folsom for diversion from Folsom Lake. The remaining 15,000 AFY will be diverted by the SCWA from the Sacramento River. (SCWA 2016a, p. 6-1)

The SCWA’s total CVP supply is subject to reductions in dry years.

City of Sacramento’s American River Place of Use

A portion of Zone 40 lies within the City of Sacramento’s American River POU. The City of Sacramento has a pre-1914 water right to the American River with a POU boundary that extends beyond the City’s boundary and includes a portion of Zone 40. The amount of water available to serve the POU area within Zone 40 is estimated to be 9,300 AFY. SCWA is planning for the future wholesale delivery of American River water within the POU. (SCWA 2016a, p.6-2) The City is not located in the POU.

Surface Water

The SCWA has an appropriative water supply that consists of self-supplied surface water drawn from the Sacramento River. In February 2008, the SWRCB approved the SCWA’s appropriative right permit application to divert water from the American and Sacramento Rivers (Permit 21209). The amount of appropriated water available for use could range up to 71,000 AFY in wet years, primarily during the winter months. This water would be diverted at the Freeport diversion on the Sacramento River. Since the SCWA’s demand is low in the winter months, it is possible that not all of this supply could be utilized without the ability to store the water (SCWA 2016a, p.6-2).

Groundwater

The SCWA's water supply portfolio includes groundwater. The Laguna Vineyard system, which supplies the City, is supplied by groundwater as well as purchased water, surface water, and a small amount of recycled water. The Laguna Vineyard system depends on mostly groundwater during dry years when available surface water supplies are reduced. The groundwater is supplied by a system of groundwater wells and groundwater treatment plants. The other seven public water systems in the SCWA are completely reliant on groundwater. The SCWA system obtains water from the Sacramento Valley Groundwater Basin, South American Subbasin. The City overlies the Central Basin portion of the South American Subbasin. Additional information about groundwater basin characteristics is in Section 3.9, "Hydrology and Water Quality." The South American Subbasin is not in critical overdraft or adjudicated.

Other Water Supply Sources Recycled Water

The Sacramento Regional County Sanitation District (Regional San) is responsible for the collection, treatment, disposal, and reuse of wastewater throughout most of the urbanized areas of Sacramento County. This includes much of the area where the SCWA provides retail water service. Through an agreement, Regional San has successfully implemented a nominal capacity of 5 million gallons per day (mgd) water recycling program with the SCWA. This program provides recycled water for Regional San on-site uses and for large commercial irrigation customers within a portion of the Laguna Vineyard water system service area (e.g., commercial, industrial, right-of-way landscaping, schools, and parks). Recycled water is a desirable source of water for outdoor landscape irrigation and other nonpotable uses because of its high reliability and its independence of hydrologic conditions in any given year. Regional San's objective is to increase recycled water use in the Sacramento region during peak irrigation months to approximately 30 to 40 mgd. Water recycling at this scale will allow Regional San to better manage its effluent discharge to the Sacramento River and could help Sacramento area water purveyors improve water supply availability and reliability (SCWA 2016a, p.6–8).

Water Transfers

Water transfers are water supplies obtained from various water users that hold surface water rights on the Sacramento River and the American River upstream of the SCWA's points of diversion. To obtain these supplies, the SCWA would enter into purchase and transfer agreements with other entities that hold these surface water rights. The assumed quantity of other water supplies is 9,600 AFY in dry years and no supplies transferred in wet years. The amount of needed water transfer supplies would vary depending on the amount of supplies needed to close the gap between supply and demand (SCWA 2016a, p. 6–14).

SCWA Water Supply and Demand

The SCWA 2015 Urban Water Management Plan (UWMP) (2016a) provides estimates of existing and future water supply availability and demand for the areas it serves. In 2015, as shown in Table 3.14-1, retail deliveries were approximately 29,000 AFY. Of that amount, approximately 24,400 AFY was for the Laguna Vineyard and Mather Sunrise systems, combined. The demand for the Laguna Vineyard (which includes the City) and Mather Sunrise systems was based on the SCWA's 2016 Zone 40 Water System Infrastructure Plan (WSIP). The WSIP included projections for the Southeast Policy Area (SCWA 2016b, Table 3-20). Because the SCWA's system is not fully metered, this is an estimate based on use type (SCWA 2016a, p. 4–1). There is not a specific demand identified in the UWMP for the portion of the City in Zone 40.

The projected reasonably available water supply volume for SCWA's retail water systems through 2040, during a normal climate year considering facility capacity constraints, is presented in Table 3.14-2. The increase in supply is the result of planned projects that will expand infrastructure capacity to allow the SCWA to use more of its available water supplies (i.e., it is not due to the acquisition of new or additional supplies) (SCWA 2016a, Table 6-9). Table 3.14-2 also summarizes the total projected retail demand for the same time frame. The projected annual availability of each water supply is constrained by available water infrastructure capacity (SCWA 2016a, p. 6-17).

In multiple-dry years, less water would be available for retail use because of reduced CVP supply, but wholesale supply would remain the same. The retail and wholesale demand for single-dry and multiple-dry years is assumed to be identical to normal year demand, which is shown in Table 3.14-2. Demands in dry years may be a few percentage points

higher due to a typical hotter and drier climate, which leads to higher outdoor water use. On the other hand, during 2015, the SWRCB mandated demand reductions that amounted to 32 percent for SCWA. It is possible that future years with the same water supply conditions as 2015 may have similar demand reductions (SCWA 2016a, p. 7-4).

Table 3.14-2 SCWA Reasonably Available Volume of Water Supplies Compared to Demand (Normal Year)

Water Supply	Source	2020	2025	2030	2035	2040
Purchased or imported water	CVP water. SCWA may vary this amount in combination with the appropriate surface water, remediated groundwater, and transfer supplies so that the combined total does not exceed the total annual demand (approximately 34,200 ac-ft/yr) that the Vineyard SWTP can supply.	21,300	21,300	21,300	21,300	21,300
Purchased or imported water	City of Sacramento supply. Not planned for use until the interconnection with the City is constructed after 2040.	0	0	0	0	0
Surface water	Appropriate water. SCWA may vary this amount as described for purchased water.	4,000	4,000	4,000	4,000	4,000
Groundwater	Available volume based on groundwater supply capacity. Safe yield not quantified.	47,000	47,000	52,000	62,000	62,000
Groundwater	Remediated groundwater. SCWA may vary this amount as described for purchased water.	8,900	8,900	8,900	8,900	8,900
Transfers	Other surface water supplies. SCWA may vary this amount as described for purchased water.	0	0	0	0	0
Recycled water	Regional San	1,700	1,700	1,700	1,700	1,700
Total Retail Supply		82,900	82,900	87,900	97,900	97,900
Total Wholesale Supply	Groundwater	5,000	5,000	6,000	7,000	7,000
Total Supply		87,900	87,900	93,900	104,900	104,900
Total Retail Demand		48,121	55,489	63,288	71,145	79,278
Total Wholesale Demand		4,120	4,826	5,733	6,233	6,769
Total Demand		52,241	60,315	69,021	77,378	86,047
Surplus		35,659	27,585	24,879	27,522	18,853

Source: SCWA 2016a, Table 4-6, Table 4-7, Table 6-12, and Table 6-13

A comparison of supply and demand for single-dry and multiple-dry year scenarios for the combined retail and wholesale uses is presented in Table 3.14-3. The multiple-dry year scenario mimics the water supply conditions of 2013 through 2015 when CVP allocations were 100 percent, 75 percent, and 25 percent of the average use of supplies during the previous three years.² The demands are the same as the normal year demands, but as explained for the single- dry year scenario, the second and third year demands might be lower if demand reduction mandates are imposed by the State (SCWA 2016a, p. 7-4).

Groundwater represents a substantial part of the SCWA’s water supply portfolio to meet projected demand, particularly for the area that includes the City. The SCWA 2015 UWMP (2016a, Table 6-12 and Table 7-10) provides projections of “reasonably available” groundwater volume, based on groundwater supply capacity, with safe yield not quantified. As shown in Table 3.14-2, the reasonably available groundwater volume would remain the same for normal, single-dry, and multiple-dry year scenarios, ranging from 47,000 AFY in 2020 and 2025, increasing to 52,000 AFY in 2030, and 62,000 AFY in 2035 and 2040. The remediated supply (8,900 AFY) is the same through the planning period, but the SCWA may vary the amount.³ Therefore, to meet demand during dry years, the SCWA would seek to supplement its reduced CVP supplies with the use of other surface water supplies (SCWA 2016a, p. 7-5).

Table 3.14-3 SCWA Projected Supply-Demand Comparison for Single-Dry and Multiple-Dry Year Scenarios

Supply-Demand	2020	2025	2030	2035	2040
Single-Dry Year					
Supply total	75,200	75,500	80,600	90,600	90,800
Demand total	52,241	60,315	69,021	77,378	86,047
Surplus	22,959	15,185	11,579	13,222	4,753
Multiple-Dry Year – First Year					
Supply total	87,900	87,900	93,900	104,900	104,900
Demand total	52,241	60,315	69,021	77,378	86,047
Surplus	35,659	27,585	24,879	27,522	18,853
Multiple-Dry Year – Second Year					
Supply total	82,900	82,900	87,900	97,900	97,900
Demand total	52,241	60,315	69,021	77,378	86,047
Surplus	30,659	22,585	18,879	20,522	11,853
Multiple-Dry Year – Third Year					
Supply total	75,200	75,500	80,600	90,600	90,800
Demand total	52,241	60,315	69,021	77,378	86,047
Surplus	22,959	15,185	11,579	13,222	4,753

Source: SCWA 2016a, Tables 7-4 through 7-8

SCWA Water Supply Infrastructure

Existing Surface Water Treatment and Conveyance Facilities

SCWA surface water supplies for Zone 40 are diverted from the Sacramento River at Freeport and through the City of Sacramento’s Sacramento River SWTP. Surface water diverted from the Sacramento River at the Freeport diversion structure is conveyed through the Freeport Regional Water Authority pipeline, treated at the Vineyard SWTP, and then delivered via a SCWA 6-inch pipeline to the Zone 40 service area. The current capacity of the Vineyard SWTP is 50 mgd with an ultimate capacity of 100 mgd. The Vineyard SWTP currently provides treated surface water primarily to customers in the CSA with a smaller amount supplied to customers in the SSA.

Surface water diverted from the Sacramento River and treated at the Sacramento River SWTP is provided to the SSA through the Franklin Intertie, which has capacity of 11.1 mgd. Water from the intertie flows into the SSA through two routes. A dedicated transmission main connects to SCWA’s Dwight Road facility where the supply is pumped into the SSA. Water from the intertie is also supplied to the SSA through an in-line booster pump that connects directly to the SSA distribution system.

Existing water distribution facilities in Zone 40 include storage tanks and pipelines. Three pipelines cross SR 99 and hydraulically connect the CSA and the SSA at Sheldon Road, Bond Road, and Grant Line Road. The two nearest points of connection to major SCWA infrastructure related to the City are water transmission mains along Bilby Road at West Stockton Boulevard and at the Grant Line Road/SR 99 interchange.

Existing Groundwater Production, Treatment, and Conveyance Facilities

Groundwater is supplied to Zone 40 from wells that are connected to groundwater treatment plants (GWTPs) and from wells that pump directly into the distribution system (direct feed). Each GWTP consists of wells that are manifolded into a treatment plant, a ground-level storage tank, and a pump station. Zone 40 has 14 active storage tanks. Eleven of the storage tanks are located at GWTPs. These tanks are used to meet the peak hour increment of demand that is greater than the maximum day demand as well as emergency and fire flow demands. Most GWTPs are supplied by more than one well. Treated water from the GWTPs flows into the ground-level storage tanks and is subsequently pumped into the distribution system. The pump stations are typically sized larger than the GWTP capacities so that peak hour supply can be pumped to the distribution system from the storage tanks.

The CSA is supplied water from five groundwater treatment plants and the Vineyard SWTP. There are also three direct feed wells that supply the CSA. In the case of the Dwight Road GWTP in the SSA, the pump station is sized larger than the GWTP to also pump the Franklin Intertie supply into the SSA. The direct feed wells pump directly into the distribution system and do not require treatment. Direct feed wells are located in some areas of the CSA and SSA. The SCWA also has some wells that were drilled and planned to be equipped in the future. The existing capacity of groundwater facilities and of the Vineyard SWTP (50 mgd) each is sufficient to meet the CSA's existing water demand.

The SSA is supplied water from four GWTPs and from the Franklin Intertie. There are six direct feed wells that supply the SSA. The SSA also receives some supply from the CSA. The three existing connections between the CSA and SSA can be used to supply surface water or groundwater to the SSA. The CSA has minimal to no spare surface water capacity in a wet/average year and no groundwater capacity in a dry year on the maximum demand day (SCWA 2016b).

Planned Facilities

The SCWA has identified six projects that would increase the projected supplies shown in Table 3.14-1. As noted previously, these projects would expand infrastructure capacity to allow the SCWA to use more of its available water supplies. These projects are the Phase A NSA project and disconnection of the Anatolia GWTP in 2020 (with equivalent supply to come from the Poppy Ridge GWTP expansion in 2020), the Phase B NSA project in 2025, and the West Jackson GWTP and Big Horn GWTP expansion in 2035 (SCWA 2016a, Table 6-9).

Elk Grove Water District

The Elk Grove Water District (EGWD) is a department of the Florin Resource Conservation District, and operates the Elk Grove Water District's water system. The EGWD provides service to residents and businesses within an approximately 13-square-mile area within the current City limits. The service area is bounded to the north by Sheldon Road, to the east by Grant Line Road, to the south by Union Industrial Park, and to the west by SR 99. The Sheldon/Rural Area Community Plan and Eastern Elk Grove Community Plan areas are in the eastern part of the EGWD service area boundary, though no services are provided in the Sheldon/Rural Area.

The EGWD's service area is separated into two subareas. Service Area 1 relies entirely on groundwater from seven wells and a potable groundwater treatment plant owned by the EGWD (Railroad Street Treatment and Storage Facility). Service Area 2 is served by water purchased from the SCWA, which delivers both surface water and groundwater from its conjunctive use operations; but as a matter of practice, water served to customers in Service Area 2 is almost entirely derived from SCWA's production wells (EGWD 2016, p. 3-1). There are approximately 7,500 residential accounts and approximately 500 acres of nonresidential uses served in Service Area 1, which is mostly built out, and approximately 4,100 residential accounts and approximately 220 acres of nonresidential uses served in Service Area 2 (EGWD 2016, Table 4-4).

The EGWD covers approximately 3 percent of the entire Central Basin. Taking into account the Central Sacramento County Groundwater Management Plan's (2006) overall estimated sustainable groundwater yield of 273,000 AFY, the EGWD has 9,168 AFY of groundwater available within its service area. In 2015, the district supplied 5,312 acre-feet of water, 1,914 of which was supplied by the SCWA, and 3,398 of which was produced from the EGWD's groundwater wells. The EGWD projects that total demand for both service areas would increase from 7,694 AFY in 2020 to 8,059 AFY in 2040, and that there would be sufficient water to meet current needs and anticipated future demand. The EGWD assumed the majority of growth would be in Service Area 2, which would consist of approximately 2,000 new residential accounts and an additional approximately 120 acres of nonresidential uses (EGWD 2016, Table 4-5, Table 4-6, p. 3-10 and p. 4-10).

Proposed housing candidate sites within the EGWD's service area consist of C-13, C-14, and C-19. Housing candidate sites within Service Area 2 consist of C-5, C-7, C-15, C-17, C-20, and C-21.

Omochumne-Hartnell Water District

The OHWD serves the region surrounding the Cosumnes River. The region overlaps with a portion of the SWCA service area along the City's southeastern border. The OHWD purchases and manages supplemental water from the CVP for the benefit of South Basin Groundwater District agricultural users adjacent to the Cosumnes River and Deer Creek. No existing or candidate housing sites are located within the OHWD service district.

Climate Change

Climate change is anticipated to have an impact on water supplies. Changes in weather patterns resulting from increases in global average temperature could bring about a decreased proportion and total amount of precipitation falling as snow. This phenomenon is predicted to result in an overall reduction of snowpack in the Sierra Nevada. Runoff from precipitation and snowmelt from the Sierra Nevada is the main source of surface water supply for SCWA and other purveyors in the City, as well as in the entire Sacramento region and much of the rest of the State. During the summer months, irrigation and agricultural runoff are the main sources of surface water. Most streams are intermittent and historically dry during the summer; however, urbanization and agricultural practices have resulted in low summer flows consisting of runoff.

The US Bureau of Reclamation has evaluated the risks and impacts of climate change in the Sacramento River Basin, which is detailed in the Sacramento and San Joaquin Climate Impact Assessment. The report incorporates an overview of the current climate and hydrology of California's Central Valley as well as projections of hydrologic changes that the basin may experience because of climate change. The report projects a north-to-south trend of decreasing annual average precipitation throughout the 21st century. Additionally, the report predicts a shift to an increase in the rate of winter runoff and a decrease in precipitation falling as snow in the winter months. These shifts in precipitation patterns may result in an exceedance of surface water capacity earlier in the year. If flow rates exceed the capacity of reservoirs in the Sacramento and American River watersheds, fresh water would need to be released to accommodate river flow, which comprises a source of potable water that previously would have been stored in the Sierra Nevada snowpack. These conditions are already affecting summer water supply in the county (Ascent Environmental 2017).

A quantitative vulnerability assessment prepared by the Regional Water Authority included in the American River Basin Integrated Regional Water Management Plan (IRWMP) evaluated the effects on both surface water and groundwater. The assessment indicates that surface water supplies would be reduced and would be mostly associated with reduced diversions from the American River. Climate change is also anticipated to have an impact on groundwater. Also noted is that increased groundwater pumping would occur to meet urban and agricultural demands, i.e., the long-term average groundwater pumping in the Central Basin would increase by 6 percent. Groundwater elevations would decrease from 6 to 15 feet from the baseline condition in the SCWA's service area. Planned actions to address these vulnerabilities include decreasing urban per capita water demand and continuing current efforts such as implementing conjunctive use management, recycled water use, and interconnections between adjacent water purveyors (SCWA 2016a, Section 6.11).

WASTEWATER

Sacramento Regional County Sanitation District

The Sacramento Regional County Sanitation District (Regional San) provides wastewater treatment for the City. Regional San serves approximately 1.4 million residents, industrial and commercial customers, and owns and operates the regional wastewater conveyance system. Regional San manages wastewater treatment, major conveyance, and wastewater disposal (Regional San 2020).

Sacramento Area Sewer District

The Sacramento Area Sewer District (SASD) serves as one contributing agency to Regional San. The SASD provides wastewater collection and conveyance services in the urbanized unincorporated area of Sacramento County, in the Cities of Citrus Heights, Elk Grove, and Rancho Cordova, and in a portion of the Cities of Sacramento and Folsom.

SASD owns, operates, and maintains a network of 4,500 miles of main line and lower lateral pipes within a 270 square-mile area. (SASD 2020).

SASD trunk sewer pipes function as conveyance facilities to transport the collected wastewater flows to the Regional San interceptor system. The existing City trunk line extends southeast from the Sacramento Regional Wastewater Treatment Plant (SRWTP) influent diversion structure to Laguna Boulevard, then parallel to SR 99 along East Stockton Boulevard, extending close to the southern City boundary.

Sacramento Regional Wastewater Treatment Plant

The SRWTP, operated by Regional San, is located on 900 acres of a 3,550-acre site between I-5 and Franklin Boulevard, north of Laguna Boulevard. The remaining 2,650 acres serve as a “bufferland” between the SRWTP and nearby residential areas.

The SRWTP has 169 miles of pipeline. Wastewater is treated by accelerated physical and natural biological processes before it is discharged to the Sacramento River (Regional San 2020).

An upgrade of the SRWTP is currently under way. The upgrade, known as the EchoWater Project, must be built by 2023 to meet new water quality requirements that were issued by the Central Valley RWQCB as part of Regional San’s 2010 NPDES permit. The requirements are designed primarily to help protect the 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. Flows to the SRWTP have decreased as a result of water conservation efforts over the last 10 years. Further, adequate capacity for wastewater is anticipated well into the future. Flows in 2014 were approximately 141 million gallons per day (mgd), compared to the current permitted capacity of 181 mgd. It is not anticipated that Regional San will need to consider further improvements to the SRWTP until after 2050. The SRWTP has also been master planned to accommodate additional growth beyond the planning year to 350 mgd ADWF of treatment capacity (Regional San 2008, p 15).

Septic Service

Sacramento County Environmental Management Department

The Sacramento County Environmental Management Department (EMD) provides mandated regulatory services in food service, hazardous materials, solid waste facilities, and septic service. The EMD is responsible for regulating septic systems within the county. The eastern portions of the City, which includes primarily agriculture and rural residential land uses, are generally served by individual septic systems.

SOLID WASTE

Republic Services, formerly known as Allied Waste, provides residential solid waste services in the City under an exclusive franchise agreement. Solid waste generated by commercial and multifamily residential developments is served by registered commercial haulers or county-authorized recyclers (City of Elk Grove 2018).

Landfill Capacity

Solid waste generated in the City is taken to a variety of landfills. Table 3.14-4 shows landfills used by the City and the permitted and remaining capacities of those landfills. As shown, the majority of the landfills serving City waste haulers have over 70 percent remaining capacity (CalRecycle 2020).

Table 3.14-4 Disposal Facilities and Remaining Capacities

Site Name	Remaining Capacity	Remaining Capacity Date	Total Capacity
Altamont Landfill & Resource Recovery	65,400,000	6/30/2016	124,400,000
Foothill Sanitary Landfill	125,000,000	6/10/2010	138,000,000
Sacramento County Landfill (Kiefer)	112,900,000	9/12/2005	117,400,000
L and D Landfill	1,936,081	12/27/2017	20,500,000
Bakersfield Metropolitan (Bena) SLF	32,808,260	7/1/2013	53,000,000
North County Landfill & Recycling Center	35,400,000	12/31/2009	41,200,000
Recology Hay Road	30,433,000	7/28/2010	37,000,000
Keller Canyon Landfill	63,408,410	11/16/2004	75,018,280
Forward Landfill, Inc.	22,100,000	12/31/2012	51,040,000
Potrero Hills Landfill	13,872,000	1/1/2006	83,100,000

Source: CalRecycle 2020

3.14.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

This section analyzes utility and service system impacts that may occur from the proposed amendments to the General Plan associated with the Housing Element and Safety Element Update. The evaluation of utility and service impacts is based on review of published information and reports, and consultation with utility service providers. The analysis considers the impact analysis provided in the General Plan EIR, and focused review of the extent of land use and density change associated with the proposed housing sites. The analysis is focused on whether the project would result in impacts on utilities and service systems not previously considered in the General Plan EIR. Energy impacts are addressed in Section 3.5, "Energy."

Off-site infrastructure impacts are not evaluated in this Draft SEIR because the Housing Element and Safety Element Update would not necessitate the construction of infrastructure improvements.

Water Demand

Table 5.14-4 of the General Plan EIR shows the water demand factors for each General Plan land use designation and calculates the water demand for each land use based on acreage. Using the water demand factors for each existing and proposed land use, this Draft SEIR calculates the difference in water demand that would occur with implementation of the land use changes in the Housing Element Update.

Wastewater Treatment and Disposal

For purposes of this analysis, the estimated additional wastewater that would be generated by the Project is assumed to be equal to the additional water demand.

THRESHOLDS OF SIGNIFICANCE

A utilities and service systems impact is considered significant if implementation of the Project would do any of the following:

- ▶ require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;

- ▶ have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years;
- ▶ result in a determination by the wastewater treatment provider that 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;
- ▶ generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure;
- ▶ negatively impact the provision of solid waste services or impair the attainment of solid waste reduction goals; and/or
- ▶ comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.14-1: Adverse Impacts on Sufficient Water Supply and Treatment

General Plan Impact 5.12.1.1 identified significant and unavoidable water supply impacts because of the anticipated new water demand for development outside of the City but within the Study Areas. Implementation of the Housing Element and Safety Element Update could generate additional demand for water supplies from the provision of additional housing. However, the additional demand is minor as compared with existing and projected SCWA water demand, supply, and surplus. Therefore, the additional water demand resulting from the Project would not result in a new or substantially more severe water supply impacts than was addressed in the General Plan EIR. Project impacts would be **less than significant**.

Implementation of the Housing Element and Safety Element Update would not, in and of itself, construct new housing in the City. However, the Housing Element Update would facilitate the development of residential units by providing policies and actions that would promote housing for all persons. The majority of policies and actions in the Housing Element Update commit the City to continuing to encourage the provisions of affordable housing and housing appropriate for special needs groups and to encourage the maintenance of existing housing. Implementation of the Housing Element Update could increase the number of dwelling units in the City by up to 2,722 units over development anticipated in the adopted General Plan through redesignation of General Plan land uses and associated rezoning.

The Safety Element Update addresses potential evacuation and emergency access improvements and identifies residential development in hazards areas with limited access. This update would not result in additional water demand.

General Plan EIR Impact 5.12.1.1 evaluated the sufficiency of water supplies to serve the up to approximately 48,000 new homes in the Planning Area and noted that implementation of the General Plan would increase demand for domestic water supply, which could result in the need for additional water supplies. General Plan Policy INF-1-1 requires that water supply and delivery systems must be available in time to meet the demand created by new development. However, the development of future water supplies by the SCWA (if determined by the SCWA to be necessary) could result in environmental impacts, some of which may be significant. Mitigation Measure 5.12.1.1 was incorporated to reduce potential effects from additional water supply from SCWA, but this measure is only applicable to Study Area lands in the City's Planning Area that would be annexed into the City; as no existing or candidate housing sites are within the Study Area lands, this measure would not apply to these sites. While Mitigation Measure 5.12.1.1 and General Plan Policy INF-1-1 would require the demonstration of adequate water supply to serve newly-annexed areas, the evaluation and analysis needed to demonstrate sufficient supply and the effects of obtaining and delivering that supply, along with necessary environmental review and implementation of mitigation measures, would be the responsibility of the SCWA and EGWD, not the City. Because this is the responsibility of SCWA, which is not subject to local regulations or any General Plan policies, this impact would be significant and unavoidable. It should be noted that Mitigation Measure 5.12.1.1 does not apply to the Project because it only applies to future annexations, none of which are included in the Project.

Implementation of the Housing Element Update would increase the number of dwelling units in the City by up to 2,722 units over development anticipated in the adopted General Plan through redesignation of General Plan land uses. Table 5.14-4 of the General Plan EIR shows the water demand factors for each General Plan land use designation and calculates the water demand for each land use based on acreage. Using the water demand factors for each existing and proposed land use, Table 3.14-5 below calculates the difference in water demand that would occur with implementation of the land use changes in the Housing Element Update. As calculated below, the Project could result in an increase in water demand of approximately 45.11 AFY. No increase in water demand is anticipated from implementation of the Safety Element Update because no changes in General Plan designated land uses would occur.

Table 3.14-5 Existing and Anticipated Water Demand under the Housing Element Update

Map ID	General Location	Acreage	Existing General Plan Designation	Proposed General Plan Designation	Water Provider	Existing General Plan Water Demand (AF/year)	Proposed General Plan Designation Water Demand (AF/year)	Difference (AF/year)
E-1	M&H Site in Lent Ranch	12.8	HDR	HDR	SCWA	31.23	31.23	0.00
E-2	Quail Run	4.88	HDR	HDR	SCWA	11.91	11.91	0.00
E-3	Bruceville Road south of Poppy Ridge Road	15.48	HDR	HDR	SCWA	37.77	37.77	0.00
E-4	NWC Bruceville Road and Big Horn Boulevard	6.5	HDR	HDR	SCWA	15.86	15.86	0.00
E-5	SEPA, Clark Property	9	HDR	HDR	SCWA	21.96	21.96	0.00
E-6	SEPA, Suyanaga Property	8.6	HDR	HDR	SCWA	20.98	20.98	0.00
E-7	SEPA, Souza Lot 1096	7.1	HDR	HDR	SCWA	17.32	17.32	0.00
E-8	SEPA, Souza Lot 1097	7.9	HDR	HDR	SCWA	19.28	19.28	0.00
E-9	SEPA, Souza Lot 1098	6.5	HDR	HDR	SCWA	15.86	15.86	0.00
E-10	SEPA, Souza Lot 1098	7.2	HDR	HDR	SCWA	17.57	17.57	0.00
E-11	SEPA, Souza Lot 1105	9.3	HDR	HDR	SCWA	22.69	22.69	0.00
E-12	SEPA, Bruceville Meadows	8.4	HDR	HDR	SCWA	20.50	20.50	0.00
E-13	Backer Family, Big Horn Boulevard at Poppy Ridge Road	11.1	HDR	HDR	SCWA	27.08	27.08	0.00
E-14	Elk Grove Florin Road at Brown Road	4.4	HDR	HDR	SCWA	10.74	10.74	0.00
E-15	Harbour Point Drive and Maritime Drive	3.06	HDR	HDR	SCWA	7.47	7.47	0.00
E-16	East Stockton Boulevard at Bow Street	2.9	HDR	HDR	SCWA	7.08	7.08	0.00
E-17	Sheldon Farms North, Anthem	5.3	HDR	HDR	SCWA	12.93	12.93	0.00
E-18	Sheldon Farms South, Arsone	9	HDR	HDR	SCWA	21.96	21.96	0.00
C-1	Sterling Meadows HDR Site	10.68	HDR	HDR	SCWA	26.06	26.06	0.00
C-2	End of Dunisch Road	2.87	RC	HDR	SCWA	5.80	7.00	1.21
C-3	Laguna Boulevard and Bruceville Road (COBRA/Pacific Properties)	7.6	MDR	HDR	SCWA	16.19	18.54	2.36
C-4	2804 Elk Grove Boulevard (Samos)	7.49	MDR	HDR	SCWA	15.95	18.28	2.32

Map ID	General Location	Acreage	Existing General Plan Designation	Proposed General Plan Designation	Water Provider	Existing General Plan Water Demand (AF/year)	Proposed General Plan Designation Water Demand (AF/year)	Difference (AF/year)
C-5	SEC Sheldon Road and East Stockton Boulevard	12.3	RC	HDR	EGWD	24.85	30.01	5.17
C-6	NEC Sheldon Road and Power Inn Road	8	CC	HDR	SCWA	16.16	19.52	3.36
C-7	Waterman Road at Rancho Drive	3.5	LDR	HDR	EGWD	7.46	8.54	1.09
C-8	8994 Calvine Road	2.32	RC	HDR	SCWA	4.69	5.66	0.97
C-9	8770 Calvine Road	3.5	HDR	HDR	SCWA	8.54	8.54	0.00
C-10	Laguna Boulevard and Haussmann Street	6.96	CC	HDR	SCWA	14.06	16.98	2.92
C-11	Laguna Vaux	2.59	CC	HDR	SCWA	5.23	6.32	1.09
C-12	Laguna Boulevard and Gropius Street	5.85	EC	HDR	SCWA	11.82	14.27	2.46
C-13	9296 E Stockton Boulevard	3.81	HDR	HDR	EGWD	9.30	9.30	0.00
C-14	9343 E Stockton Boulevard	1.96	EC	HDR	EGWD	3.96	4.78	0.82
C-15	NWC Bond Road and Waterman Road	4.6	CC	HDR	EGWD	9.29	11.22	1.93
C-16	Stathos Drive	3.19	LDR	HDR	SCWA	6.79	7.78	0.99
C-17	Waterman 75 (Mosher Road and Grant Line Road)	5	RC	HDR	EGWD	10.10	12.20	2.10
C-18	Bow Street Northwest	10.3	LDR	HDR	SCWA	21.94	25.13	3.19
C-19	Old Town 4 lots	2.1	CC	HDR	EGWD	4.24	5.12	0.88
C-20	SEC Bond Road and Waterman Road	1.5	RR	HDR	EGWD	2.06	3.66	1.61
C-21	Bond Road and Stonebrook Drive	1.66	MDR	HDR	EGWD	3.54	4.05	0.51
C-22	Calvine Road and Jordan Ranch Road	2.06	ER	HDR	SCWA	2.82	5.03	2.20
C-23	Calvine Road and Bradshaw Road	2.02	CC	HDR	SCWA	4.08	4.93	0.85
C-24	SWC Lotz Parkway and Whitelock Parkway	5	LDR	HDR	SCWA	10.65	12.20	1.55
C-25	Eden Gardens	5.17	ER	HDR	SCWA	7.08	12.61	5.53
					SCWA	518.05	549.04	31.00
					EGWD	74.8	88.88	14.11
					Total:	592.85	637.92	45.11

Calculated by Ascent Environmental using water demand factors shown in City of Elk Grove 2018:Table 5.12-4.

Note: This analysis used the following water demand factors:

- ▶ HDR 2.44 AF/acre/year
- ▶ RC 2.02 AF/acre/year
- ▶ MDR 2.13 AF/acre/year

- ▶ CC 2.02 AF/acre/year
- ▶ LDR 2.13 AF/acre/year
- ▶ EC 2.02 AF/acre/year
- ▶ RR 1.37 AF/acre/year
- ▶ ER 1.37 AF/acre/year

The General Plan EIR noted that water demand and supply projections associated with the development within the existing City limits under the prior General Plan were accounted for in SCWA's 2015 UWMP (City of Elk Grove 2018:5.12-21). Therefore, almost all of the new demand under the General Plan would be the result of future development in the Study Areas.

The General Plan EIR indicates that the EGWD 2015 UWMP was based on previous development assumptions and overestimates the number of new residential units by 600, which is essentially a surplus built into the water demand assumption. As shown above in Table 3.12-5, the Housing Element Update would increase water demands associated with EGWD by 14.11 AFY. Based on EGWD's UWMP demand factors for future apartments (0.21 AF/account), this would account for approximately 67 new accounts, which is far below the overstated number of accounts in the EGWD 2015 UWMP (600 units). Thus, because the EGWD 2015 UWMP demonstrates that water supplies would be adequate to meet demands during normal, dry, and multi-dry year scenarios for an overstated number of projected units, candidate sites located within the EGWD service area would be adequately served by current and future water supplies (i.e., through 2045) (EGWD 2016).

General Plan EIR Table 5.12-3 presented SCWA's projected supply and demand comparison for single-dry and multiple-dry year scenarios. For 2020, SCWA estimates a water demand of 52,241 AFY with projected surpluses ranging from 22,959 AFY to 35,659 AFY. For 2040, SCWA estimates a water demand of 86,047 AFY with surpluses ranging from 4,752 AFY to 18,853 AFY. As calculated in Table 3.12-5 above, the Project could increase the City's water demand from SCWA by approximately 31AFY. The additional demand represents less than one percent of the lowest projected surplus and 0.06 percent of the lowest projected demand. Given the small amount of increase from the Project relative to SWCA projected demands and surpluses, it is not anticipated that additional water supplies would need to be secured to serve the additional development under the Project.

Furthermore, any subsequent development described in the Housing Element Update would be subject to the Elk Grove General Plan policies and actions that assist in the provision of water treatment facilities and water supply. General Plan Policy INF-1-1 requires that water supply and delivery systems must be available in time to meet the demand created by new development, or shall be assured using bonds or other sureties to the City's satisfaction. This policy would ensure that water treatment and infrastructure is not compromised by the development of new housing units identified in the Housing Element Update. Additionally, there are adequate supplies of water available from SCWA Zone 40 to meet projected water demands throughout the SCWA Zone 40 service area, in addition to the increase in water demand that would result from full buildout of the proposed candidate housing sites identified in the Housing Element Update as indicated by calculated projected water demands (see Table 3.12-5). Similarly, adequate water supplies are available from the EGWD, for candidate sites within its service area, because overstated development assumptions within the EGWD 2015 UWMP would be greater than increased water demand associated with candidate sites within the EGWD service area. Consequently, while the Project would result in an increase in water demand, the increase is minor compared with existing and projected demand, supply, and surplus. The General Plan EIR concluded that no additional feasible mitigation was available beyond compliance with General Plan policies and implementation of Mitigation Measure 5.12.1.1 (which, as discussed above, is only applicable to Study Area lands outside of the existing City boundaries) and concluded that Impact 5.12.1.1 was significant and unavoidable. The additional water demand from implementation of the Project would not result in a new or substantially more severe impacts regarding water supply than was addressed in the General Plan EIR. Project impacts would be **less than significant**.

Mitigation Measures

No additional mitigation is required beyond compliance General Plan Policy INF-1-1.

Impact 3.14-2: Adverse Impacts on Wastewater Treatment Capacity

General Plan EIR Impact 5.12.2.1 evaluated whether implementation of the General Plan would increase demand for wastewater treatment. General Plan EIR Impact 5.12.2.2 evaluated whether implementation of the General Plan would require the construction of new or expanded wastewater infrastructure, which could result in impacts to the physical environmental effects. The analyses both concluded that while the General Plan would increase demand for wastewater treatment, facility plans would have sufficient capacity to serve the additional wastewater. The proposed housing sites that would require redesignation of General Plan land uses under the Housing Element Update could generate approximately 0.04 million gallons per day (mgd) of wastewater beyond the amount anticipated under the adopted General Plan. The SRWTP has been master planned to accommodate additional growth. Therefore, the additional wastewater services resulting from the Project would not result in a new or substantially more severe impacts than was addressed in the General Plan EIR. Project impacts would be **less than significant**.

General Plan EIR Impact 5.12.2.1 evaluated whether implementation of the General Plan would increase demand for wastewater treatment. General Plan EIR Impact 5.12.2.2 evaluated whether implementation of the General Plan would require the construction of new or expanded wastewater infrastructure, which could result in impacts to the physical environmental effects. The analyses noted that the General Plan would generate an additional 16.2 million gallons per day (mgd) of wastewater, but that facility plans would have sufficient capacity to serve the additional wastewater. Thus, the General Plan EIR concluded that the General Plan would result in less-than-significant impacts related to wastewater.

As discussed in Impact 3.15-1 above, the proposed housing sites that would require redesignation of General Plan land uses under the Housing Element Update could result in an increase in water demand of an additional 45.11 AFY. Based on this additional water demand, the Housing Element Update could result in an increase of wastewater generated by approximately 0.04 mgd. This represents an 0.2 percent increase over the amount of wastewater assumed in the General Plan EIR. The Safety Element Update addresses potential evacuation and emergency access improvements and identifies residential development in hazards areas with limited access. This update would not result in additional water demand or generation of wastewater.

As noted above, flows to the SRWTP have decreased as a result of water conservation efforts over the last 10 years. Further, adequate capacity for wastewater is anticipated well into the future. Flows in 2014 were approximately 141 million gallons per day (mgd), compared to the current permitted capacity of 181 mgd. It is not anticipated that Regional San will need to consider further improvements to the SRWTP until after 2050. The SRWTP has been master planned to accommodate additional growth beyond the planning year to 350 mgd ADWF of treatment capacity (Regional San 2008, p 15).

Planned facility expansion are based on projected growth rates provided by SACOG. The construction of future treatment facilities will occur in incremental stages to best accommodate the growth rates. If the actual growth rate is slower than projected, construction of the next increment of treatment capacity can be delayed. Conversely, if the growth rate is faster than projected, the next increment of treatment capacity can be constructed earlier than anticipated (Regional San 2008, p. 14). As a result, additional wastewater generation associated with the Project would not exceed capacity of the treatment plant.

Construction impacts associated with extension, expansion, and/or replacement of on-site wastewater system facilities may result in temporary aesthetic impacts, disturbance of biological and/or cultural resources, conversion of agricultural land, temporary air emissions, soil erosion and water quality degradation, handling of hazardous materials, temporary excessive noise, and temporary construction traffic. However, these impacts are considered throughout this Draft SEIR. The additional demand from implementation of the Project would not result in a new or substantially more severe impacts regarding wastewater treatment capacity than was addressed in the General Plan EIR. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.14-3: Adverse Impacts on Landfill Capacity and Compliance with Applicable Solid Waste Regulations

General Plan EIR Impact 5.12.3.1 concluded that increased demand for solid waste services associated with implementation of the General Plan would not result in significant environmental impacts. Implementation of the Housing Element Update could result in increased solid waste generation associated with proposed housing sites that would require redesignation of General Plan land uses. There is substantial remaining capacity in the landfills serving local waste haulers, with an average remaining capacity of more than 70 percent. All future projects associated with the Housing Element and Safety Element Update would be required to comply with all applicable solid waste regulations, including the City's Space Allocation and Enclosure Design Guidelines for Trash and Recycling. Therefore, the additional solid waste services resulting from the Project would not result in a new or substantially more severe impacts than was addressed in the General Plan EIR. Project impacts would be **less than significant**.

General Plan EIR Impact 5.12.3.1 evaluated the increased demand for solid waste collection and landfill capacity that would occur under the General Plan. As discussed in the General Plan EIR, based on CalRecycle data, the City achieved a per capita disposal rate in 2016 of 2.8 pounds per capita per day, which is lower than the State's disposal rate target for the City of 5.9 pounds per capita per day (City of Elk Grove 2018:5.12-36). Based on disposal rate factors considered in the General Plan EIR, the analysis concluded that implementation of the General Plan would not generate solid waste in excess of State or local standards or in excess of the capacity of the local infrastructure, negatively impact the provisions of solid waste services, or impact the attainment of solid waste reduction goals. Thus, the impact was concluded to be less than significant.

The Housing Element Update would result in up to 2,722 additional residential units beyond the number assumed in the General Plan EIR, which could result in approximately 8,765 additional residents (assuming 3.22 residents per dwelling unit). Using the solid waste disposal rate of 1.08 tons per resident per year (equivalent to 5.9 pounds per day), implementation of the Housing Element and Safety Element Update would generate approximately 9,466 tons of waste per year. This represents an increase beyond those discussed in the General Plan EIR. However, this increase would reasonably be expected to remain below the statewide per capita target, because the current per capita disposal rate in 2015 was 2.8 pounds per capita per day, and this increase would not be substantial enough to increase the City-Wide per capita disposal rate above the State's goal of 5.9 pounds per capita per day. Implementation of the Safety Element Update would not result in land uses or activities that would generate solid waste service demands.

Future construction associated with the Housing Element Update would also generate construction debris. However, the City's construction diversion rate is estimated at over 50 percent. Thus, implementation of the City's existing recycling programs and associated regulation would substantially reduce the volume of generated waste that would be disposed of in landfills. In addition, Elk Grove Municipal Code Section 30.70.030(E) requires that all projects recycle or divert at least 65 percent of the material collected at the construction site, not including excavated soil and land clearing debris.

Waste generated by existing and future multifamily uses would be hauled by several permitted haulers as selected by the individual developer, and wastes would be hauled to a permitted landfill for disposal as selected by the hauler. Republic Services and the other permitted haulers that serve the City would need to expand services to meet this projected future demand, which would be funded by service fees imposed on customers. As shown in Table 3.14-4, there is substantial remaining capacity in the landfills serving local waste haulers, with an average remaining capacity of more than 70 percent. Therefore, new units associated with the Housing Element Update would be served by solid waste management companies and landfills with sufficient capacity to serve the future development.

In addition, all future development projects associated with the Housing Element Update would be required to comply with all applicable solid waste regulations, including the City's Space Allocation and Enclosure Design Guidelines for Trash and Recycling. Compliance with these regulations would be ensured through the development review process. Therefore, because the new units associated with the Housing Element Update would not generate solid waste in excess of State or local standards or in excess of the capacity of the local infrastructure, negatively

affect the provisions of solid waste services, or affect the attainment of solid waste reduction goals. The additional demand from implementation of the Project would not result in a new or substantially more severe impacts regarding solid waste than was addressed in the General Plan EIR. This impact would be **less than significant**.

Mitigation Measures

No additional mitigation is required beyond compliance with the City's existing recycling programs and associated regulation, as well as Municipal Code Section 30.70.030(E).