4 CUMULATIVE IMPACTS

4.1 CEQA REQUIREMENTS

CEQA requires that an EIR include an assessment of the cumulative impacts that could be associated with project implementation. This assessment involves examining project-related effects on the environment in the context of similar effects that have been caused by past or existing projects, and the anticipated effects of future projects. An EIR must discuss the cumulative impacts of a project when its incremental effect will be cumulatively considerable. Although project-related impacts may be individually minor, the cumulative effects of these impacts, in combination with the impacts of other projects, could be significant under CEQA and must be addressed (CEQA Guidelines, Section 15130(a)). Section 15130(a)(3) states that an EIR may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable, and thus not significant, if a project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact. Section 15130(b) indicates that the level of detail of the cumulative analysis need not be as great as for the project impact analyses, that it should reflect the severity of the impacts and their likelihood of occurrence, and that it should be focused, practical, and reasonable.

4.2 CUMULATIVE IMPACT ANALYSIS

4.2.1 Cumulative Impact Analysis Methodology

Cumulatively considerable, as defined in State CEQA Guidelines Section 15065(a)(3), means that the "incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." State CEQA Guidelines Section 15355 defines a cumulative impact as two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time. Section 15130(a)(3) of the State CEQA Guidelines states that an EIR may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable, and thus not significant, if a project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact.

The State CEQA Guidelines (Section 15130) identify two basic methods for establishing the cumulative environment in which the project is to be considered: the use of a list of past, present, and probable future projects, or the use of adopted projections from a general plan, other regional planning document, or a certified EIR for such a planning document. This analysis uses a combination of the list and planning document approach, as described further below.

PAST, PRESENT, AND PROBABLY FUTURE PROJECTS

The effects of past and present projects on the environment are reflected by the existing conditions in the project area that includes the development of the East Franklin Specific Plan area and the partial development of the Laguna Ridge Specific Plan area. A list of probable future projects is provided below. Probable future projects are those in the project vicinity that have the possibility of interacting with the project to generate a cumulative impact (based on proximity and construction schedule) and either:

- are partially occupied or under construction,

- have received final discretionary approvals,
- have applications accepted as complete by local agencies and are currently undergoing environmental review, or
- are proposed projects that have been discussed publicly by an applicant or that otherwise become known to a local agency and have provided sufficient information about the project to allow at least a general analysis of environmental impacts.

The cumulative list considers related projects likely to be partially or fully constructed by the year 2036. This time period was selected because it coincides with the timing of the introduction of project impacts (i.e., project impacts would be introduced by construction and operational activities) and it is consistent with the timing requirements for water supply assessments.

4.2.2 Cumulative Setting

GEOGRAPHIC SCOPE

The geographic area that could be affected by the project varies depending on the environmental resource topic. When the effects of the project are considered in combination with those other past, present, and probable future projects to identify cumulative impacts, the specific projects considered may also vary depending on the type of environmental effects being assessed. Table 4-1 presents the general geographic areas associated with the different resource topics addressed in this analysis.

Table 4-1 Geographic Scope of Cumulative Impacts

Resource Topic	Geographic Area
Agricultural Resources	State/Sacramento County
Air Quality	Sacramento Valley Air Basin
Biological Resources	Sacramento Valley/South Sacramento County
Archaeological, Historic, and Tribal Cultural Resources	Sacramento County/City of Elk Grove
Geology and Soils	Sacramento Valley
Greenhouse Gases and Climate Change	Global/state-wide
Hazards and Hazardous Materials	Sacramento County/City of Elk Grove
Hydrology and Water Quality	Sacramento County/City of Elk Grove Drainage Shed C
Land Use	Sacramento County/City of Elk Grove
Noise	Immediate project vicinity where project-generated noise could be heard concurrently with noise from other sources
Population and Housing	Sacramento County/City of Elk Grove
Public Services	City of Elk Grove/ Cosumnes Community Services District
Transportation and Circulation	Regional and local roadways and freeways where the Bilby Ridge SOIA could contribute traffic that could alter traffic conditions
Visual Resources	Sacramento County/City of Elk Grove
Utilities	Sacramento County/City of Elk Grove
Energy	Sacramento Municipal Utility District and Pacific Gas and Electric Company service areas

Source: Compiled by Ascent Environmental in 2017

PROJECT LIST

Probable future projects considered in the cumulative analysis meet the criteria described above: they are in the project vicinity and have the possibility of interacting with the project to generate a cumulative impact (Table 4-2). This list of projects was considered in the development and analysis of the cumulative settings and impacts for most resource topics within the geographic scope of each resource topic (as listed in Table 4-1). Past and present projects in the vicinity were also considered as part of the cumulative setting, as they contribute to the existing conditions upon which the SOIA and probable future projects' environmental effects are compared.

Table 4-2 Cumulative Project List

	Project Name	Location	Description	Status
1	Bruceville Meadows	Northeast corner of Kammerer Road and Bruceville Road, Elk Grove	Special Planning Area Amendment to reconfigure land uses within 114-acre project site. Proposes 324 single family residential lots total on 77 acres, 10 acres of multi-family, and 20 acres of public facilities.	Planning Review
2	Vineyard at Madeira Phase III	Southeast corner of Bruceville Road and Whitelock Parkway, Elk Grove	Tentative Parcel Map to subdivide and reconfigure four existing parcels into five new parcels. Proposes three retail buildings, one fueling station with convenience store, and one restaurant with drive-through, as well as associated site improvements.	Construction Plan Review
3	Souza Diary	Whitelock Parkway and Promenade Parkway, Elk Grove	Tentative Subdivision Map to create more than 500 small residential lots	Planning Approved
4	Outlet Collection at Elk Grove	10465 Promenade Parkway, Elk Grove	775,000 square feet of commercial uses.	Construction Plan Review
5	Feletto Property	Southwest and southeast corners of Kammerer Road and South Promenade Park Way, Elk Grove	A District Development Plan for a 13-acre visitor commercial district within the Lent Ranch Special Planning Area.	Planning Approved
6	SMUD Franklin Electric Transmission Project	10419 Franklin Boulevard, Elk Grove	Construct and operate a new bulk transmission substation and a new distribution substation, modify existing and construct new overhead 69 and 230 kilovolt power lines that would link the substations to the electrical grid, and dismantle a nearby distribution substation.	Approved
7	Kammerer Road/Highway 99 Sphere of Influence Amendment	West of State Route 99, south of Kammerer Road and east of McMillan Road	Amendment to the City of Elk Grove's Sphere of Influence to include approximately 1,156 acres adjacent to the City's southern boundary.	Final EIR in process
8	Capital Southeast Connector	Extends from the Interstate 5/Hood Franklin Road interchange in southwest Sacramento County to U.S. Highway 50 in the community of El Dorado Hills	35-mile-long multi-modal transportation facility that would link communities in Sacramento and El Dorado Counties, including Elk Grove, Rancho Cordova, Folsom, and El Dorado Hills.	Construction scheduled between 2019 and 2022
9	Kammerer Road Extension Project	Kammerer Road, near the City of Elk Grove's southern boundary	Widen and extend Kammerer Road from State Route 99 to Interstate 5	Draft EIR/EA in preparation
10	Elk Grove Multi-Modal Facility	Multiple sites in the City under consideration.	The City of Elk Grove is studying the potential for a multi-modal facility to provide access to e-Tran express bus, Regional Transit Light Rail, future bus rapid transit, and commuter rail. The City has identified four potential sites for a multi-modal facility: southwest corner of Elk Grove Boulevard	Feasibility study in process

Table 4-2 Cumulative Project List

	Project Name	Location	Description	Status
			and Franklin Boulevard intersection, west of the Willard Parkway and Matina Drive intersection, southeast corner of Elk Grove Boulevard and Big Horn Boulevard intersection, and the southeast corner of the Grant Line Road and Disposal Lane intersection.	
11	Treasure Homes Amendment	Bilby Road near Bruceville Road, Elk Grove	Proposal includes a General Plan Amendment to reconfigure the boundaries and redistribute the acreages of the existing land use designations, a Laguna Ridge Specific Plan Amendment and Rezone to create a new land use/zoning designation and reconfigure the boundaries and redistribute the acreages for the new and existing land use/zoning designations, and a Tentative Subdivisions Map to subdivide the 57.1-acre project site into 204 single-family residential lots, two park lots, two open space lots, and two landscape corridor lots.	Planning Review
12	Mesa at Laguna Ridge	10371 Bruceville Road, Elk Grove	A Specific Plan Amendment to change the land use designation from Medium Density Residential to Multi-Family Residential, a rezone to change the zone district, and a Design Review to construct a 180-unit multi-family unit apartment complex with associated parking, lighting, and landscaping.	Construction Plan Review – Concurrent
13	Tuscan Ridge South II	7911 Elefa Avenue, Elk Grove	General Plan Amendment, Laguna Ridge Specific Plan Amendment, revised Tentative Subdivision Map for Village 1 of the Tuscan Ridge East Tentative Subdivision Map	Planning Review
14	Wilton Rancheria	West of State Route 99 and north of Kammerer Road in Elk Grove	Proposed 609,000 square foot casino and hotel, including restaurants, retail, fitness center, spa, and convention center on a 35-acre site. The proposed hotel would be 12 stories with a total of 302 guest rooms.	The Record of Decision signed January 2017
15	Southeast Specific Plan (Southeast Area Plan)	South of the Laguna Ridge Specific Plan area and west of Lent Ranch/Elk Grove Promenade and the approved Sterling Meadows development in Elk Grove	A strategic plan for 1,200 acres that includes high-level supportive infrastructure analysis, community design guidelines and standards, and programmatic environmental review. The land use plan consists of mixed-use, commercial, office, and industrial/flex space that would generate approximately 23,410 new jobs, approximately 4,790 residential units of varying types and densities, three elementary schools, and parks.	Adopted July 2014
16	Laguna Ridge Specific Plan	West of State Route 99, south of Elk Grove Boulevard, east of Bruceville Road and the East Franklin Specific Plan area, and north of Bilby Road and the Southeast Policy Area in Elk Grove	The Land Use Plan consists of approximately 5,887 single family homes and 1,800 multi-family or medium density units for a total of 7,767 dwelling units, and approximately 265 acres of commercial, office and civic uses (which will allow for approximately 330 thousand square feet of space at typical densities) on approximately 1,900 acres.	Adopted in June 2004
17	Multi-Sport Complex Annexation and Sphere of Influence Amendment	South of Grant Line Road near Waterman Road	A proposed new Multi-Sport Park complex to support area long-field sports (e.g., soccer, rugby, lacrosse), including training and tournament play.	Draft EIR preparation in process.

Sources:
Elk Grove (http://www.elkgrovecity.org/cms/One.aspx?portalId=109669&pageId=2275644) and City of Elk Grove 2017a
Sac County (https://planningdocuments.saccounty.net/)
Sac LAFCo (http://www.saclafco.org/Pages/default.aspx)

PLANNING DOCUMENTS

Sacramento Area Council of Governments 2016 Metropolitan Transportation Plan/Sustainable Communities Strategy

In 2016, the Sacramento Area Council of Government's (SACOG) approved the *2036 Metropolitan Transportation Plan/Sustainable Communities Strategy* (MTP/SCS), which is a regional transportation plan and land use strategy designed to support good growth patterns, including:

- Increased housing and transportation options;
- Inwardly-focused growth and improved economic viability of rural areas;
- Minimized direct and indirect transportation impacts on the environment;
- A transportation system that delivers cost- effective results and is feasible to construct and maintain;
- Effective connections between people and jobs;
- Improved opportunities for businesses and citizens to easily access goods, jobs, services, and housing; and
- Real, viable choices for methods of travel.

The MTP/SCS built on the foundation provided by the Blueprint project and includes a land use strategy to improve mobility and reduce travel demand from passenger vehicles by prioritizing compact and transit-oriented development, reducing the growth in vehicle miles traveled (VMT) and associated greenhouse gas emissions. The MTP/SCS also includes projections for the location of growth within the region, between jurisdictions and among housing place types (i.e., infill and greenfield development). The 2016 MTP/SCS maps show the SOIA area as "Blueprint Growth Footprint Not Identified for Development in the MTP/SCS Planning Period." The 2016 MTP/SCS includes no growth projections for the SOIA area for 2036.

Sacramento County General Plan

The current County of Sacramento General Plan, titled *Sacramento County General Plan of 2005–2030* (2030 General Plan), was adopted on November 9, 2011. The Sacramento County General Plan provides an inventory of land supply within the County, and projects the amount and location of land and density, and intensity of development that will be required to accommodate future populations and economic growth through 2030.

City of Elk Grove General Plan

The 2003 City of Elk Grove General Plan is a broad framework for planning the future of Elk Grove. It is the official policy statement of the City Council to guide the private and public development of the city in a manner to gain the maximum social and economic benefit to the citizens. Build-out under the 2003 General Plan would result in 77,716 dwelling units, 252,560 residents, and 97,373 jobs.

The City is in the process of updating its General Plan that would increase development potential beyond the current General Plan. The preferred land use map under the General Plan update (if approved) would result in 101,665 dwelling units, 328,378 residents, and 122,802 jobs based on City of Elk Grove General Plan Update Notice of Preparation (City of Elk Grove 2017b). The General Plan Update establishes four Study Areas (West, South, East, and North) that are currently located outside of the City boundaries that may be annexed in the future. The Study Areas consist of 7,797 acres and would provide up to 30,332 dwelling units (97,971 residents) and 40,356 jobs at build out (City of Elk Grove 2017b). The SOIA area is located within the north portion of the West Study Area that consists of 1,982 acres. The City's Draft Annexation Strategy identifies that the planning objective for the West Study Area is to create new diverse residential neighborhoods that include walkable parks, public services, and lower-intensity employment opportunities (City of Elk Grove 2017c).

4.3 ANALYSIS OF CUMULATIVE EFFECTS

The basis of the cumulative analysis varies by technical area. For example, air quality impacts are evaluated against conditions in the air basin. Other cumulative analyses, such as cultural resources, consider the potential loss of resources in a broader, more regional context. Cumulative impacts for each technical area are discussed below.

Significance criteria, unless otherwise specified, are the same for cumulative impacts as project impacts for each environmental topic area. When considered in relation to other probable future projects, cumulative impacts to some resources could be significant and more severe than those caused by the proposed project alone.

4.3.1 Aesthetics

The visual resources cumulative setting consists of the existing suburban visual character of the City of Elk Grove and the agricultural/open space and rural conditions south of the City. The existing and projected future urban development in the cities of Elk Grove, Rancho Cordova, Sacramento, Galt, and Sacramento County is expected to further contribute to the cumulative conversion of open space and agricultural areas to suburban uses and new lighting and glare sources. This cumulative impact would be significant.

Future development of the SOIA area upon annexation to the City would alter the existing visual landscape characteristics of the 480 acres of the project area from open space/grazing and grasslands to suburban uses (buildings, dense development, parks, and new roadway facilities). This would substantially alter public views of the SOIA area from public roadways and would also introduce new sources of lighting and glare. The project would contribute to the regional loss of open space and agricultural lands because of development in the City of Sacramento, City of Sacramento, City of Folsom, and Sacramento County (based on the development projects identified in Table 4-2). Cumulatively, the loss of open space as an aesthetic feature would be a significant impact.

While Mitigation Measure 3.1-1 would address visual character of future development and its consistency with the character of the City, the project would ultimately result in the conversion of open space land and further contribute to regional losses of this visual resource Thus, the project's contribution to this impact would be **cumulatively considerable**. Because of the scale and location of the SOIA area, there is no feasible mitigation available to offset the aesthetic resource impacts associated with the conversion of open space and agricultural lands to suburban development. The project's contribution to cumulative impacts related to the regional loss of the open space and agricultural lands is considered **cumulatively considerable and significant and unavoidable**.

4.3.2 Agricultural Resources

Development in the Sacramento region along with implementation of the City of Elk Grove General Plan and the Sacramento County General Plan would result in the continued loss of important farmland in the region. The Sacramento County General Plan EIR identified that implementation of General Plan planned land uses would result in the loss of up to 8,867 acres of designated farmland (Sacramento County 2010:1-7). This cumulative impact would be significant.

As discussed in Section 3.2. "Agricultural Resources," approximately 475 acres of Farmland of Statewide Importance and Farmland of Local Importance would be converted from future development of the SOIA area (this would also include "prime agricultural land" as defined under Section 56064 of the Cortese-Knox-Hertzberg Local Government Reorganization Act). In 2016, an estimated 101,252 acres of Farmland of Statewide Importance and Farmland of Local Importance existed in Sacramento County. A conversion of an estimated 475 acres of Farmland of Statewide Importance and Farmland of Local Importance would account

for approximately 0.5 percent of this total. The total conversion of Important Farmland would be relatively small in the context of the county's entire agricultural land base and would not likely cause a substantial reduction in the county's total agricultural production. However, the conversion of agricultural land would contribute to the incremental decline of Important Farmland in the county and would result in the irreversible conversion of this agricultural land. In addition, future development of the Bilby Ridge SOIA area could adversely affect nearby agricultural uses and result in the conversion of adjacent agricultural lands. The project's contribution would be **cumulatively considerable.**

Implementation of Mitigation Measure 3.2-1 and 3.2-3 would assist in reducing the project's contribution to this cumulative impact. However, these mitigation measures would not create new farmland to replace farmland that could be lost. There is no additional feasible mitigation available. Thus, the project's contribution would remain **cumulatively considerable** and **significant and unavoidable.**

4.3.3 Air Quality

AIR POLLUTANTS

Construction and operation of future development of the SOIA area could result in emissions of criteria air pollutants in Sacramento County within the jurisdiction of the Sacramento Metropolitan Air Quality Control District (SMAQMD). Sacramento County is currently in nonattainment for Ozone, PM_{10}, and $PM_{2.5}$ with respect to the California Ambient Air Quality Standards (CAAQS), and with respect to the National Ambient Air Quality Standards high traffic volumes may result in considerable contributions to nearby existing land uses. This cumulative impact would be significant.

As shown in Table 3.3-4, maximum daily construction emissions of NO_X and PM_{10} could potentially exceed applicable mass emission thresholds. Daily emissions of ROG and $PM_{2.5}$, and annual emissions of PM_{10} and $PM_{2.5}$ would not exceed the respective thresholds. However, it is likely that emissions of NO_X and PM_{10} would exceed applicable thresholds. Additionally, due to the nonattainment status of Sacramento County and the Sacramento Valley Air Basin (SVAB) with respect to the CAAQS for PM_{10} and the NAAQS for $PM_{2.5}$, construction-generated fugitive dust emissions may result in adverse air quality impacts to existing surrounding land uses and may contribute to the existing adverse air quality condition in the SVAB. Ozone impacts are the result of the cumulative emissions from numerous sources in the region and transport from outside the region. Ozone is formed in chemical reactions involving NO_X, ROG, and sunlight. All but the largest individual sources emit NO_X and ROG in amounts too small to have a measurable effect on ambient ozone concentrations by themselves. However, when all sources throughout the region are combined, they can result in severe ozone problems.

As shown in Table 3.3-5, operation-related activities of future development of the SOIA area could result in mass emissions of ROG, NO_x, PM_{10}, and $PM_{2.5}$ that exceed the SMAQMD-recommended thresholds of significance. Thus, ROG, NO_x, PM_{10}, and $PM_{2.5}$ emissions generated under full build out of the SOIA could result in adverse air quality impacts to existing surrounding land uses and may contribute to the adverse air quality conditions in the SVAB.

Implementation of Mitigation Measures 3.3-1 and 3.3-2 would assist in reducing construction and operational air quality emissions from future development of the SOIA area. Although the project would reduce construction and operational emissions to the extent feasible, long-term emission reductions cannot be quantified or verified, and the possibility remains that emissions may not be reduced to a less than significant level into perpetuity. Project operations may contribute to the nonattainment status of the region and may conflict with CAAQS and NAAQS. Thus, the project's contribution to cumulative operational air quality impacts is considered **cumulatively considerable** and **significant and unavoidable**.

CARBON MONOXIDE CONCENTRATIONS

As identified in Section 3.13, "Traffic, Transportation, and Circulation," the highest daily volume for the cumulative-plus-project condition along the roadway segments analyzed is estimated to be 158,000 for SR 99 from the Bond Road on/off ramps to the Elk Grove Boulevard on/off. The percentage of daily traffic that occurs in the peak period (a.k.a., the K factor) for SR 99 in Sacramento County ranges from 6.35 percent to 10.31 percent. Conservatively assuming the highest end of this range and applying it to the highest-volume roadway segment in the study area of 158,000 vehicles per day, the segment of SR 99 from the Bond Road on/off ramps to the Elk Grove Boulevard on/off ramps would experience a peak-hour volume of approximately 16,290 vehicles per hour. This peak-hour volume does not approach the SMAQMD screening level of 31,600 vehicles per hour. Additionally, due to stricter vehicle emissions standards in newer cars, new technology, and increased fuel economy, CO emissions are expected to be substantially lower in future years compared to the vehicle fleet operating in the region under existing conditions. The mix of vehicle types generated by the conceptual land use scenario within the SOIA area is not anticipated to have a greater percentage of heavy-duty vehicles and would not be substantially different from the County average. Furthermore, the project would not contribute traffic to a tunnel, parking garage, bridge underpass, urban street canyon, below-grade roadway, or other location in which horizontal or vertical mixing of mobile-source CO emissions would be substantially limited. Thus, project-generated local mobile-source CO emissions would not result in or substantially contribute to concentrations of CO that exceed the 1-hour or 8-hour CAAQS and NAAQS. As a result, the project's contribution to cumulative CO concentrations **would not be cumulatively considerable**.

TOXIC AIR CONTAMINANTS

As identified in Section 3.3, "Air Quality" operation of the conceptual land use plan for the SOIA area could result in new sources of toxic air contaminants (TACs) associated with new vehicular trips on existing and new roadways as well as new sources of diesel PM associated with commercial delivery trucks occurring within the commercial and office land uses. Guidance from SMAQMD's Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways and CARB's Air Quality and Land Use Handbook recommends that new sensitive receptors should not be placed within 500 feet of freeways or urban streets with traffic volumes that exceed 100,000 vehicles per day or rural roads with 50,000 vehicles per day. As described in Section 3.13, "Traffic, Transportation, and Circulation," the project would generate approximately 34,529 daily trips (i.e., new TAC sources) that travel on the surrounding roadway network. Further, under cumulative –plus-project conditions, traffic volumes along roadways adjacent to the SOIA area would range from 4,800 to 35,800 vehicles per day. These traffic volumes would not exceed the 100,000-vehicles-per-day criterion identified by SMQMD and CARB and would be spread through the City's roadway network, thus new and existing sensitive receptors would not be exposed to increased health risk. As a result, the project's contribution to cumulative TAC concentrations **would not be cumulatively considerable**.

The nearest roadways which would experience traffic volumes that exceed 100,000 vehicles per day in the cumulative plus project scenario are I-5 and SR-99 which would daily traffic volumes of 102,400 and 158,000 vehicles per day along their most heavily traveled segments within the study area. The SOIA area is approximately 1.75 miles east of I-5, and 2.5 miles west of SR-99. Thus, new sensitive receptors as a result of the project would not located within 500 feet of either freeway, and thus, would not be exposed to excessive health risk. No other urban roadways or freeways near the SOIA area would experience volumes that exceed the applicable thresholds in the cumulative-plus-project scenario. As a result, the project's contribution to new TAC exposure under cumulative conditions **would not be cumulatively considerable**.

4.3.4 Biological Resources

The SOIA area is bounded to the south by agricultural land; however, over the past 10 to 15 years, significant urban and suburban development have taken place north of the SOIA area. The overall trend of urban and suburban development, and conversion of existing agricultural land, will continue throughout the region

within the vicinity of the project. Development within the vicinity of the project can be placed into two categories, including commercial and residential development, and roadway construction and widening. Several projects will include conversion of agricultural land, while others involve development on land that has been previously developed (see Table 4-2). Impacts to special-status plant and wildlife species, and sensitive natural communities, from these projects in the region would be the same as those described in Section 3.4, "Biological Resources," of this EIR. This cumulative impact would be significant.

All potential cumulative projects within must comply with federal, state, and local regulations, including ESA, CESA, CWA, and CEQA regarding listed or other protected species and habitats. Potential impacts to special-status plants, special-status wildlife, and sensitive natural communities will require mitigation to reduce project impacts to a less-than-significant level. Implementation of the SSHCP, if adopted, would provide habitat conservation and avoidance and minimization measures to preserve biological diversity and provide a framework for development that would not likely jeopardize the continued existence of covered species. The SSHCP would reduce site-specific and cumulative impacts of development by replacing project-by-project mitigation with comprehensive, long-term strategies for conserving, protecting, and maintaining viable populations of covered species and natural habitats.

As described in Section 3.4, "Biological Resources," future development in the SOIA area upon annexation would contribute to cumulative impacts to special-status plants, giant gartersnake, western pond turtle, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, song sparrow ("Modesto" population), tricolored blackbird, vernal pool fairy shrimp, vernal pool tadpole shrimp, American badger, and jurisdictional wetlands. The mitigation measures for these resources (Mitigation Measures 3.4-1, 3.4-2a, 3.4-2b, 3.4-2c, 3.4-2d, 3.4-2e, 3.4-2f, 3.4-2g, 3.4-3, and 3.4-4) would reduce impacts to less-than-significant levels with the exception of the loss of Swainson's hawk habitat and the regional loss of habitat for special-status species. Therefore, the project's contribution would be **cumulative considerable** and **significant and unavoidable**.

4.3.5 Cultural and Paleontological Resources

The cumulative context for cultural and paleontological resources is the Sacramento County, including the City of Elk Grove. Continued urbanization of the region in accordance with applicable land use plans as well as those approved and proposed development projects described above, could result in the damage to or destruction of cultural and paleontological resources in the region. This cumulative impact would be significant.

HISTORIC RESOURCES

No known historic resources are located within the boundaries of the project site, however access to the site was not allowed at the time of the preparation of this EIR to evaluate whether the on-site buildings would be eligible as historic resources for inclusion in the NRHP or CRHR. Future development of the site could result in the loss of buildings or structures that have not yet been evaluated for historical significance. Implementation of Mitigation Measures 3.5-1 would ensure that the project's contribution would not be cumulatively considerable by requiring a historic structure report and evaluation of resources prior to ground-disturbing activities and would require all report recommendations be implemented to offset the project's contribution. Therefore, the project's contribution to cumulative historic resource impacts **would not be cumulatively considerable**.

ARCHAEOLOGICAL RESOURCES

No known archaeological resources are located within the boundaries of the project site; nonetheless, project-related earth-disturbing activities could potentially damage undiscovered archaeological resources. Implementation of Mitigation Measures 3.5-2 would ensure that the project's contribution would not be cumulatively considerable by requiring an archaeological survey prior to ground-disturbing activities and requiring construction work to cease in the event of an accidental find and requiring evaluation/treatment of

the potential resource. This mitigation measure would offset the project's contribution. Therefore, the project's contribution to cumulative archaeological resource impacts **would not be cumulatively considerable**.

TRIBAL CULTURAL RESOURCES

As discussed under Impact 3.5-5, no tribal cultural resources (TCRs) have been identified in the SOIA area and would not contribute to the regional loss of TCRs. Thus, the project **would not have a cumulative impact** to TCR resources.

PALEONTOLOGICAL RESOURCES

The project, in combination with other development in the region, could cause a substantial adverse change in the significance of a paleontological resource. Because all significant cultural resources are unique and nonrenewable members of finite classes, meaning there are a limited number of significant cultural resources, all adverse effects erode a dwindling resource base. The loss of any one paleontological resource could affect the scientific value of others in a region because these resources are best understood in the context of the entirety of the system of which they are a part. No known paleontological resources are located within the boundaries of the project site; nonetheless, project-related earth-disturbing activities could potentially damage undiscovered paleontological resources. Implementation of Mitigation Measures 3.5-4 would ensure that the project's contribution would not be cumulatively considerable by requiring project applicants to inform all construction personnel involved with earthmoving activities regarding the possibility of encountering fossils; requiring construction work to cease in the event of an accidental find; and requiring evaluation/treatment of the specimen. This mitigation measure would offset the project's contribution. Therefore, the project's contribution to cumulative paleontological resource impacts **would not be cumulatively considerable**.

4.3.6 Energy

The geographic area considered for cumulative impacts related to energy use includes the service areas for SMUD and PG&E. These providers employ various programs and mechanisms to support provision of these services to new development; various utilities charge connection fees and re-coup costs of new infrastructure through standard billings for services. There is currently sufficient infrastructure and energy supply to support existing demand. SMUD is planning to offset growth in peak demands through implementation of energy efficiency and conservation measures. Through a combination of increases in energy efficiency and power management strategies (e.g., importation of power from the grid during peak usage periods), SMUD is anticipated to maintain sufficient capacity to provide power through 2050. (City of Sacramento 2016:4.5-24). No significant cumulative impact would occur.

WASTEFUL, INEFFICIENT, OR UNNECESSARY CONSUMPTION OF ENERGY

Implementation of Mitigation Measure 3.7-1a provided in Section 3.7, "Greenhouse Gas Emissions," would further improve the energy efficiency of the project through increase use of on-site renewable energy, efficient lighting, energy efficient plumbing fixtures, and/or consideration of zero net energy development (if feasible), among other measures. Implementation of Mitigation Measure 3.7-1a would also further reduce project VMT through measures such as on- and off-site safety improvements for bike, pedestrian, and transit connections, and/or implement relevant improvements identified in the City of Elk Grove Bicycle, Pedestrian, and Trails Master Plan (see also Mitigation Measure 3.13-1). Through incorporation of bicycle, pedestrian, and transit facilities and amenities, and reduction of fuel usage by providing for infrastructure for electric vehicle charging at residences and the commercial land uses, future projects within the SOIA area would not result in a wasteful or inefficient use of transportation-related energy. Thus, the project's contribution to cumulative energy use **would not be cumulatively considerable**.

ENERGY INFRASTRUCTURE

Cumulative development in the region would increase electricity and natural gas consumption and may require new utility connections and infrastructure improvements that could result in significant cumulative environmental impacts. While the conceptual land use plan provides no details on the extension of electrical and natural gas infrastructure into the SOIA area, there are existing electrical and natural gas infrastructure facilities along the roadway network surrounding the SOIA area that are available for connection. Electrical infrastructure around the SOIA area includes a 69 kilovolt (kV) overhead line and a 12kV underground line north of Bilby Road, as well as 12kV and 69kV overhead lines along Bruceville Road. PG&E has stated that natural gas service could be provided to the SOIA area in the event of development. Natural gas facilities could be extended from nearby facilities to serve the proposed SOIA Area (LAFCo 2016: 4.0-41).

SMUD and PG&E would review development plans once the applicant submits them to the appropriate design and construction services departments, and determine infrastructure connection specifics at that time. The potential environmental effects of any new or expanded off-site utilities to accommodate cumulative growth would be considered by the utility provider through separate CEQA review. The physical environmental impacts from construction or operation of off-site improvements could remain significant after implementation of Mitigation Measure 3.6-2 (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 local land use agencies would have control over the approval, timing, or implementation any facility improvements. The project would contribute to the need for new/expanded energy infrastructure that could result in significant environmental impacts. Therefore, the project's contribution would be **cumulatively considerable** and **significant and unavoidable**.

4.3.7 Greenhouse Gas Emissions

As discussed in Section 3.7, "Greenhouse Gas Emissions," impacts of greenhouse gas emissions and climate change are inherently cumulative because project emissions of GHGs by themselves would not be so substantial as to alter the global climate. As identified in this section, implementation of Mitigation Measures 3.3-2, 3.7-1a, and 3.7-1b could offset future development greenhouse gas emissions such that the project's GHG impacts. However, Sacramento LAFCo cannot guarantee the success of these mitigation measures for offsetting project emissions. Confirmation of compliance with the mitigation measures would require monitoring of the GHG reduction actions as development occurs. LAFCo would not be able to verify or enforce these measures after annexation. The City of Elk Grove is also in the process of updating its Climate Action Plan (CAP) and may alter the mitigation approach for the development of this project (after annexation) to match the updated CAP GHG reduction measures. Because of this uncertainty in achieving no net increase in GHG emission, the project's contribution to this significant cumulative impact would be **cumulatively considerable** and **significant and unavoidable**.

4.3.8 Hydrology, Drainage, and Water Quality

Previous, on-going, and future development in the southern portion of Sacramento County and the City of Elk Grove have contributed to additional demands on groundwater resources that may further drawdown groundwater elevations and available water supply, surface and groundwater water quality impacts, and regional increases in peak drainage flows from increased impervious surfaces. This cumulative impact would be significant.

WATER QUALITY

As identified in Impact 3.8-1, future development of the SOIA area upon annexation could introduce construction and operational water pollutants into stormwater discharges Implementation of Mitigation Measure 3.8-1 would require that stormwater drainage master planning be prepared for the entire SOIA area

as part of future site development that would require compliance with City stormwater quality requirements that are tied to its NDPES permit requirements to protect surface water quality. This mitigation measure would offset project's contribution to cumulative water quality impacts. Therefore, the project's contribution to cumulative water quality impacts **would not be cumulatively considerable.**

GROUNDWATER RESOURCES

The project site was included in the SCWA Zone 40 Water Supply Master Plan's 2030 Study Area. As evaluated further in Section 3.14, "Utilities," the SCWA manages water conjunctively; adjusting the mix of surface and groundwater supplied based on rainfall and availability of surface water. The WSIP (SCWA 2016) projects that total water demand in the service area, including water system losses will be 102,400 acre-feet per year (afy) in the year 2052. The service area has adequately planned supply facilities to be able to address both the wet/average years and dry years. The excess supply during normal years is projected to range from 140,000 afy in 2020 to 84,600 afy in 2052, and in dry years the excess supply is projected to range between 60,700 afy in 2020 and 11,800 acre-feet per year in 2052 (SCWA 2016). The addition of 1,009.5 afy of potential project water demand based on the conceptual land use plan (see Exhibit 2-4) (a 1 percent increase) would not drastically change the assumptions used by SCWA, which have a margin of error and are updated on a regular basis to reflect changes in land use and consumption rates.

The Water Forum estimated that the long-term average annual sustainable yield of the Central Basin was 273,000 afy, while extractions were estimated at 217,111 afy in 2015. The CSCGMP identifies provisions to maintain groundwater pumping levels within the sustainable yield, including reducing demand, conjunctive use, and aquifer storage and recovery projects that apply to SCWA's water supply provision of the project. The Sacramento Central Groundwater Authority Alternative Submittal demonstrates subbasin operations from 2005 to 2015 did not exceed the sustainable yield conditions set forth by the Water Forum Agreement of 273,000 afy. If approved, the 273,000 afy sustainable yield set forth by the Water Forum Agreement will be incorporated into the Alternative Submittal, and will be the base year for measuring the long-term sustainability of groundwater in the subbasin. The project's increased water demands would not cause groundwater pumping within the Central Basin to exceed its sustainable yield. Thus, the future development of the SOIA area is not expected to substantially deplete groundwater supplies or lower groundwater levels beyond projected levels. As a result, the project's contribution to potential groundwater use under cumulative conditions **would not be cumulatively considerable**.

DRAINAGE

As identified in Impact 3.8-3, future development of the SOI area would increase the quantity of impervious surfaces, which could alter the drainage pattern, or increase the rate or amount of surface runoff. The increased runoff could also discharge at a greater rate, leading to higher peak flows during storm events that could increase the potential for stormwater to cause flood conditions and to transport urban pollutants. This would contribute to cumulative flow conditions associated with City's Drainage Shed C, which covers nearly 7,900 acres, that drains eventually into the Sacramento River. Implementation of Mitigation Measure 3.8-1 would require that stormwater drainage master planning be prepared for the entire SOIA area as part of future site development that would require compliance with City drainage and stormwater quality requirements, require no increase in existing no drainage flows off-site, and require coordination with planned drainage improvements associated with the Southeast Area Plan that is located east of the SOIA area. Therefore, the project's contribution to cumulative drainage impacts **would not be cumulatively considerable.**

4.3.9 Land Use

As identified in Impacts 3.9-1, 3.9-2, and 3.9-3, the SOIA would not result in any land use policy or LAFCo provision inconsistencies. There would be **no cumulative impact** related to land use plan consistency.

As identified in Table 3.2-1, Sacramento County has lost 23,996 acres of agricultural land since 2004. This county-wide loss of agricultural lands is considered a significant cumulative impact for agricultural resources and open space lands. Section 56059 of the Cortese-Knox-Hertzberg Local Government Reorganization Act utilizes the open space definition under Government Code Section 65560 that includes agricultural lands. The future development of the SOIA area would further contribute to this on-going loss of agricultural lands. Implementation of Mitigation Measure 3.2-1 would partially offset the direct conversion of agricultural lands that could occur within the SOIA area, but this approach would not create new agricultural lands to replace lands that could be lost. Therefore, the project's contribution to cumulative open space loss would be **cumulatively considerable** and **significant and unavoidable**.

Cumulative effects of the physical changes related to the project are discussed in the other topics in this section.

4.3.10 Noise and Vibration

CONSTRUCTION NOISE

The nature of construction noise effects are such that project-related construction activities would have to occur simultaneously and near those of other projects for a cumulative effect to occur. The land directly surrounding the project area on the north and west is already developed and, therefore, it is not anticipated that construction activities would occur in these areas. However, development is planned directly east of the project site (Bruceville Meadows) and could potentially occur concurrently with construction at the SOIA area. Existing and new sensitive receptors along Bruceville Road could potentially be exposed to construction noise from both site. Thus, a potentially significant cumulative construction noise impact could occur.

Construction of the project would generate noise localized to the project area, and when combined with other nearby future construction activities could result in sensitive receptors located in the City of Elk Grove experiencing construction-generated noise levels that exceed the City of Elk Grove daytime and nighttime exterior noise standards of 55 L_{eq} and 45 L_{eq}, respectively (see Table 3.10-10), and sensitive receptors located in the County of Sacramento experiencing construction-generated noise levels that exceed the County of Sacramento daytime and nighttime exterior noise standards of 55 L_{eq} and 50 L_{eq}, respectively (see Table 3.10-12). The City of Elk Grove Code, Section 6.32.100 Exemptions, exempts project construction associated noise adjacent to residential land uses during the timeframe of 7:00 a.m. and 7:00 p.m., Monday through Sunday. However, it is possible that certain construction activities on the sites would need to occur during the non-exempt and more noise-sensitive nighttime hours at both sites. As such, if construction-noise at the project were to occur concurrently with future construction activities located at nearby development, the project could combine and result in a **considerable contribution to a potentially significant cumulative impact**.

Implementation of Mitigation Measures in 3.10-1a and 3.10-1b, would include a variety of measures to reduce exposure to construction-generated noise; however, these measures would not be sufficient to avoid significant construction noise impacts associated with the project if nighttime construction activities where to occur concurrently with future construction activities located at nearby development. Thus, the incremental contribution of the project to this significant cumulative impact would remain **cumulatively considerable** and **significant and unavoidable**.

CUMULATIVE TRAFFIC NOISE

Future cumulative traffic noise levels would be affected by additional build-out of surrounding land uses and increases in vehicular traffic on affected roadways. Several new large developments (e.g., Bruceville Meadows, Southeast Specific Plan, and Laguna Ridge Specific Plan) and others (see Table 4-2 for a complete list) are planned in the area surrounding the project area and would generate vehicle trips on many of the same roadways as land uses developed on the SOIA site.

Traffic-noise modeling was conducted for the future (cumulative) condition with and without new development on the SOIA area, the results of which are shown in Table 3.10-20.

Table 4-3 Summary of Modeled Traffic Noise Levels under Cumulative and Cumulative Plus Project Conditions

Segment Description	Roadway Segment	Applicable Exterior L_{dn} Noise Standard for Land Uses along Roadway Segment (dBA)[1,2]	Allowable Exterior L_{dn} Noise Standard Increase (dBA)[5]			L_{dn} at Nearest Sensitive Receptor
			Existing No Project	Cumulative No Project	Cumulative Plus Project	
Hood Franklin Road (I-5 NB Off-Ramp to Kammerer Road)[4]	60	1.5	64.9	71.8	72.0	0.2
Kammerer Road (Hood Franklin Road to Willard Parkway)	60	3	NA	63.5	63.8	0.3
Kammerer Road (Willard Parkway to Bruceville Road)	60	3	NA	61.2	61.6	0.4
Kammerer Road (Bruceville Road to McMillan Road)	60[3]	1.5	65.0	72.6	73.0	0.4
Kammerer Road (McMillan Road to Driveway)	65	1.5	58.5	66.3	66.5	0.2
Kammerer Road (Driveway to Lent Ranch Parkway)[4]	60	1.5	65.0	73.6	73.7	0.0
Kammerer Road (Lent Ranch Parkway to Promenade Parkway)[4]	60	1.5	65.0	73.5	73.6	0.1
Kammerer Road (Promenade Parkway to SR 99 SB Ramps)[4]	60	1.5	69.1	77.1	77.1	0.0
Grant Line Road (SR 99 SB Ramps to SR 99 NB Ramps)[4]	60	1.5	69.0	76.1	76.1	0.0
Grant Line Road (SR 99 NB Ramps to E Stockton Boulevard)[4]	60	1.5	69.0	75.0	75.0	0.0
Grant Line Road (E Stockton Boulevard to Waterman Road)[4]	60	1.5	69.9	74.6	74.6	0.0
Grant Line Road (Waterman Road to Mosher Road)[4]	60	1.5	68.5	72.2	72.2	0.0
Grant Line Road (Mosher Road to Bradshaw Road)	60	1.5	68.5	72.2	72.2	0.0
Grant Line Road (Bradshaw Road to Elk Grove Boulevard)	60[3]	1.5	71.5	73.4	73.4	0.0
Willard Parkway (Bilby Road to Future Roadway Segment 2)	60[3]	5	50.6	57.5	58.6	1.1
Bilby Road (Willard Parkway to Coop Drive)	60[3]	3	61.2	60.1	61.3	1.1
Bilby Road (Coop Drive to Bruceville Road)	60[3]	3	61.2	63.9	65.2	1.3
Bruceville Road (Bilby Road to Whitelock Parkway)	60	3	60.6	64.4	64.9	0.5
Bruceville Road (Whitelock Parkway to Civic Center Drive)	60[3]	3	61.6	63.1	63.5	0.4
Bruceville Road (Civic Center Drive to Elk Grove Boulevard)	60[3]	3	61.9	63.3	63.6	0.3

Table 4-3 Summary of Modeled Traffic Noise Levels under Cumulative and Cumulative Plus Project Conditions

Segment Description	Roadway Segment	Applicable Exterior L_{dn} Noise Standard for Land Uses along Roadway Segment (dBA)[1,2]	Allowable Exterior L_{dn} Noise Standard Increase (dBA)[5]			L_{dn} at Nearest Sensitive Receptor
			Existing No Project	Cumulative No Project	Cumulative Plus Project	
Willard Parkway (Bilby Road to Whitelock Parkway)	60[3]	3	60.7	63.7	64.4	0.7
Franklin Boulevard (Whitelock Parkway to Elk Grove Boulevard)	60[3]	3	60.3	61.8	62.0	0.3
Bruceville Road (Bilby Road to Kammerer Road)	65	3	NA	62.4	61.9	-0.5
Bruceville Road (Kammerer Road to Eschinger Road)	65	5	56.5	51.5	51.5	0.0
I-5 (Laguna Boulevard On/Off Ramps to Elk Grove Boulevard On/Off Ramps)	60[3]	3	61.1	62.3	62.4	0.1
I-5 (Elk Grove Boulevard On/Off Ramps to Hood Franklin Road On/Off Ramps)	60[3]	3	60.1	61.4	61.5	0.1
I-5 (Hood Franklin Road On/Off Ramps to Twin Cities Road On/Off Ramps)[4]	65	1.5	67.9	69.4	69.4	0.0
SR 99 (Bond Road On/Off Ramps to Elk Grove Boulevard On/Off Ramps)	60[3]	3	62.7	63.8	63.9	0.1
SR 99 (Elk Grove Boulevard On/Off Ramps to Grant Line Road On/Off Ramps)	60[3]	1.5	63.5	65.5	65.5	0.0
SR 99 (Grant Line Road On/Off Ramps to W Stockton Boulevard On/Off Ramps)	60[3]	3	61.2	62.3	62.4	0.0
SR 99 (W Stockton Boulevard On/Off Ramps to Dillard Road On/Off Ramps)	65	3	62.0	63.3	63.3	0.0
SR 99 (Dillard Road On/Off Ramps to Arno Road On/Off Ramps)	65	5	58.2	59.6	59.6	0.0

Notes: L_{dn} = Day-Night Level; dBA = A-weighted decibels;

[1] 60 L_{dn}– Exterior Noise Standard for all residential, transient lodging, hospitals and nursing homes, and churches and meeting halls per the City of Elk Grove General Plan. See Table 3.10-8

[2] 65 L_{dn} – Exterior Noise Standard for all residential, transient lodging, hospitals and nursing homes, churches, meeting halls, schools, libraries, office buildings and industry per the County of Sacramento General Plan. See Table 3.10-11

[3] Accounts for 5-dBA decrease in noise levels where existing sound walls are located.

[4] Roadway segments along which no nearby noise-sensitive receptors were identified were modeled at 100 feet from the roadway centerline and analyzed using only the incremental increase standard for transportation noise.

[5] Incremental traffic noise increase standard per the City of Elk Grove General Plan (see Policy NO-6) and County of Sacramento General Plan (see Table 3.10-13).

Refer to Appendix C for detailed traffic data, and traffic-noise modeling input data and output results.

Source: Noise levels modeled by Ascent Environmental in 2017

As shown in Table 4-3, the cumulative-plus-project condition would not result in roadways that currently do not exceed the City of Elk Grove or County of Sacramento maximum allowable exterior noise level under existing conditions to exceed these levels in the cumulative-plus-project condition. Additionally, the applicable noise increment increase standard (used for considerable contribution thresholds) would not be exceeded along any of the roadway segments analyzed under the existing-plus-project condition (as shown in Table 3.10-17) or under the cumulative-plus-project condition (as shown in Table 4-3). Thus, the project **would not result in a considerable contribution** such that a new significant traffic noise impact would occur.

CUMULATIVE OPERATIONAL NOISE

As described in Section 3.10, "Noise and Vibration," operational noise levels associated with operation of commercial land uses that could be developed on the SOIA area would not result in noise levels that exceed applicable exterior or interior noise compatibility standards at off-site receptors. Further with mitigation, the on-site residential receptors would not be subject to substantial operational noise from the commercial land use activities. Therefore, the project **would not result in a considerable contribution** such that a new significant operational noise impact would occur.

4.3.11 Population and Housing

At a regional level, the population of the SACOG region is expected to increase to 3,078,772 by 2036, while the City of Elk Grove is expected to continue to see population growth with 210,084 residents by the year 2036. Increased population and employment in the region could generate the need for additional housing and infrastructure, which could lead to conversion of undeveloped land and associated adverse physical environmental impacts of the sort that are addressed in this section of the EIR. This cumulative impact would be significant.

As identified in Table 2-1, future development of the SOIA area upon annexation could result in 1,846 dwelling units (5,540 new residents) and 4,359 jobs that were not considered in the current City of Elk Grove General Plan or the Sacramento County General Plan. The SACOG 2016 MTP/SCS identifies the project site as part of the "Blueprint Growth Footprint Not Identified for Development in the MTP/SCS Planning Period." Though the 2016 MTP/SCS does not assume any development in these areas by 2036, it is an area identified for development under the SACOG Blueprint.

Thus, the proposed SOIA would indirectly result in a **cumulatively considerable** contribution to population growth beyond current general plans that would result in significant environmental impacts. As identified in this section, mitigation measures have been identified that would reduce the project's contribution to the environmental impacts associated with its growth potential. However, there is no feasible mitigation to reduce all identified environmental impacts to a less-than-cumulatively considerable level. Thus, the incremental contribution of the project to this significant cumulative impact would remain **cumulatively considerable** and **significant and unavoidable**.

4.3.12 Public Services

Implementation of the project in combination with development in the vicinity of the project and located within the City of Elk Grove and Sacramento County identified in Table 4-2 would contribute to potentially significant cumulative impacts on public services (fire protection, law enforcement, and public schools) and recreation in the region.

The SOIA area is located within an area that has experienced significant urban and suburban development over the last 10- to 15- years. The overall trend of urban and suburban development, and conversion of existing agricultural land, will continue throughout the region within the vicinity of the project. As identified in Table 4-2, large projects in the region include the Sacramento Area Council of Government's 2016 Metropolitan Transportation Plan/Sustainable Communities Strategy, which suggests new transportation and land use projects, and the ongoing update to the City of Elk Grove's General Plan. In addition, there are several proposals for development throughout the area (Southeast Policy Area, Souza Dairy, Kammerer SOIA, Bruceville Meadows, Treasure Homes Amendment, Tuscan Ridge South II, and Vineyard at Madeira Phase III) that would contribute to an increased cumulative demand for public services if approved. As identified under Impacts 3.12-1, 3.12-2, 3.12-3, and 3.12-4, the project would contribute to the cumulative need for new fire protection, police protection services, public school facilities, and parks.

Implementation of Mitigation Measure 3.12-1 and 3.12-2 would require that the project develop adequate fire and police facilities to service the Bilby Ridge SOIA area prior to annexation of the territory. However, because specific facilities are not proposed at this time, and the construction and operation of new facilities could result in significant physical environmental impacts that would remain significant after mitigation, it cannot be guaranteed that mitigation measures would be able to reduce all significant impacts to less than significant. Thus, the incremental contribution of the project to this significant cumulative impact would remain **cumulatively considerable** and **significant and unavoidable**.

4.3.13 Traffic, Transportation, and Circulation

As discussed in Section 3.13, "Traffic, Transportation, and Circulation," the transportation impact analysis is based on year 2036 cumulative conditions in regard to future development and planned transportation improvements in the region (see Impact 3.13-1 and 3.13-2). As identified in Impact 3.13-1 and 3.13-2, significant cumulative transportation impacts would occur with the project. Mitigation Measure 3.13-1 would reduce this impact through participation in roadway and state highway improvements as well as provision of bicycle, pedestrian, and transit improvements and inter-connections with the rest of the City. Because the location and intensity of future development within the proposed expansion of the City's sphere of influence is not known at this time, including potential off-site infrastructure improvements, it is not possible to identify what improvements may be necessary to comply with level of service policies of the relevant affected agencies. In some circumstances, improvements to facilities that could be affected by future development within the SOIA area may require coordination among multiple agencies (e.g., City of Elk Grove, Sacramento County, and Caltrans). Thus, the incremental contribution of the project to this significant cumulative impact would remain **cumulatively considerable** and **significant and unavoidable**.

Implementation of Mitigation Measure 3.13-1 would offset project bicycle, pedestrian, and transit impacts under cumulative conditions by the provision of on-site transportation improvements that would interconnect with existing and planned City pedestrian, bicycle, and transit improvements consistent with the City of Elk Grove Bicycle, Pedestrian, and Trails Master Plan. Thus, the incremental contribution of the project to this cumulative impact **would not be cumulatively considerable**.

4.3.14 Utilities

WATER SUPPLY

The SOIA area is in the South Service Area (SSA) of Zone 40. The SSA is currently supplied by surface water from the Franklin Intertie and the Vineyard Surface Water Treatment Plant, groundwater from existing groundwater treatment plants (GWTPs) and some direct feed wells, and a small amount of recycled water. The SSA has adequately planned supply facilities to be able to address both the wet/average years and dry years. The excess supply during normal years is projected to range from 140,000 acre-feet per year in 2020 to 84,600 acre-feet per year in 2052, and in dry years the excess supply is projected to range between 60,700 acre-feet per year in 2020 and 11,800 acre-feet per year in 2052 (SWCA 2016). This illustrates capacity to serve the approximate 1,009.5 acre-feet per year of demand generated by the SOIA area. No significant cumulative water supply impacts would occur. Further, because adequate supplies are available, the project **would not have a cumulatively considerable contribution** such that a new significant cumulative water supply impact would occur.

The impacts of construction or operation of off-site water distribution improvements, if required, could result in significant environmental effects. Neither LAFCo nor the City of Elk Grove would have control over the approval, timing, or implementation these improvements. Therefore, the potential impact of constructing new or expanded water facilities to serve cumulative development would be significant. Thus, the incremental contribution of the project to this significant cumulative impact would remain **cumulatively considerable** and **significant and unavoidable**.

WASTEWATER SERVICE

Sacramento Area Sewer District (SASD) would be the local wastewater collection service provider for future development in the region and the SOIA area.

The SRWWTP is permitted to treat an ADWF of 181 mgd, while the facility's 2014 ADWF was approximately 106 mgd. The 181 mgd permitted capacity has been in effect since 1990. While the approved EchoWater project will result in improved effluent water quality, this project does not increase treatment capacity of SRWWTP. In the 1990s and early 2000s, Regional San considered capacity expansion from 181 to 218 mgd ADWF and had flows as high as 155 mgd ADWF, with expectations that treatment needs would increase. Since then, water conservation and a reduction in water use have reversed the growth in wastewater capacity use. Regional San expects per capita consumption to fall 25 percent over the next 20 years through the ongoing installation and use of water meters, as well as compliance with water conservation measures. As such, substantial additional water conservation is expected throughout Regional San's service area, putting off the expectation that the existing 181 mgd ADWF capacity will be exhausted until at least 2050 (Regional San 2014:6-2.). Assuming that all of the water supplied to the SOIA area is converted to wastewater, the area is estimated to generated 901,671 gallons of wastewater each day. This would not substantially affect the remaining capacity of the SRWWTP. No significant cumulative wastewater treatment capacity impacts would occur. Further, because adequate capacity is available, the project **would not have a cumulatively considerable contribution** such that a new significant cumulative wastewater treatment impact would occur.

Regional San has completed an Interceptor Sequencing Study that included study of the SOIA area and provides general information about the best way to serve the area, including reevaluating the current alignment and/or need for the South Interceptor and potential interim facilities that may be necessary to provide service. However, Regional San staff has stated that future sewer service to these areas cannot be planned until annexation into Regional San has occurred (LAFCo 2016:4.0-14). If future studies indicate that the demand generated from annexation and development of future development and the SOIA area would require off-site utility improvements, such improvements to wastewater facilities would be the responsibility of the utility and would be subject to separate environmental review. Implementation of any mitigation measures identified through this process would be the responsibility of the utility, 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. Thus, the incremental contribution of the project to this significant cumulative impact would remain **cumulatively considerable** and **significant and unavoidable**.

SOLID WASTE SERVICE

As identified under Impact 3.14-5, the Kiefer, Forward, L and D, and Yolo County Central 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. There is adequate permitted landfill capacity available to accommodate the project and future growth into the foreseeable future. This is a less-than-significant cumulative impact and the project's cumulative demands **would not result in a considerable contribution** such that new significant cumulative impact would occur.

4.3.15 Hazards

The project's public health hazard impacts related to the use, handling, and transportation of hazardous materials and contamination, are associated with site-specific issues that are not connected to cumulative conditions in the region. On a cumulative basis, hazardous impacts would be less-than-significant.

There is no existing significant adverse cumulative condition relating to hazards and hazardous materials in the vicinity of the project and, alone, the incremental impacts of the project would not cause a significant adverse cumulative impact. Further, construction activities associated with the project would not substantially increase the hazard potential in the study area, and operation of the project would not cause a significant adverse cumulative impact. Mitigation is recommended to address the project's site-specific impacts to a less-than-significant level. As a result, the project would not have a considerable contribution such that a new significant cumulative public health hazard impacts would occur.

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